Transcript Exhibit(s)

Docket #(s): L-00000YY-15-0318-00171

LS Case No. 171

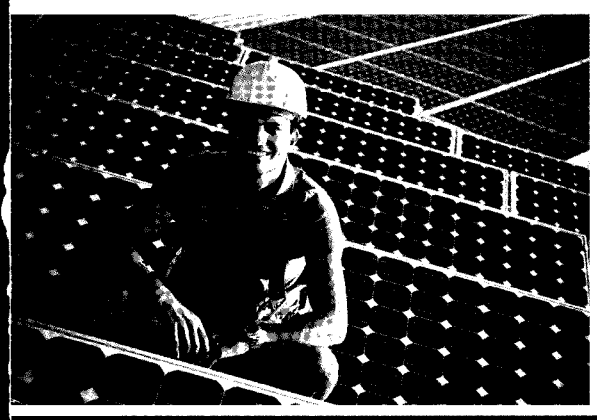
Exhibit #: Sun 10-16, Sun 18-24

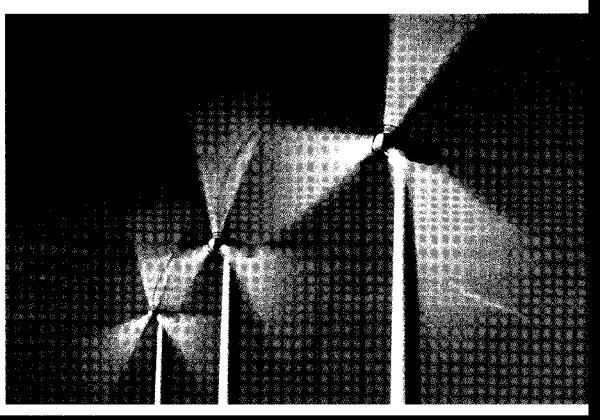
Volume 3 of 8

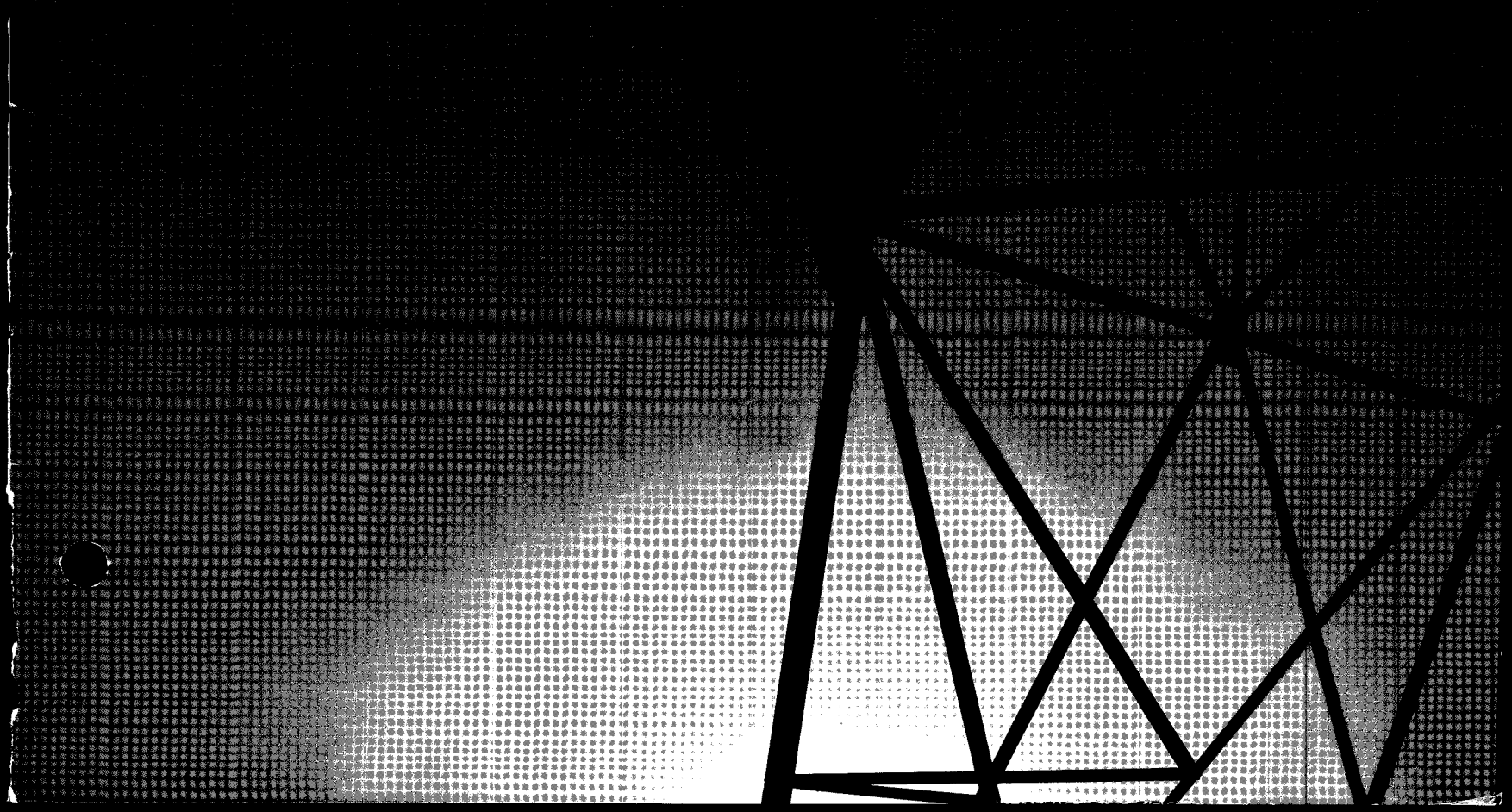
SunZia

New Energy Economy in the Desert Southwest

Powering jobs, economic development and renewable energy in Arizona







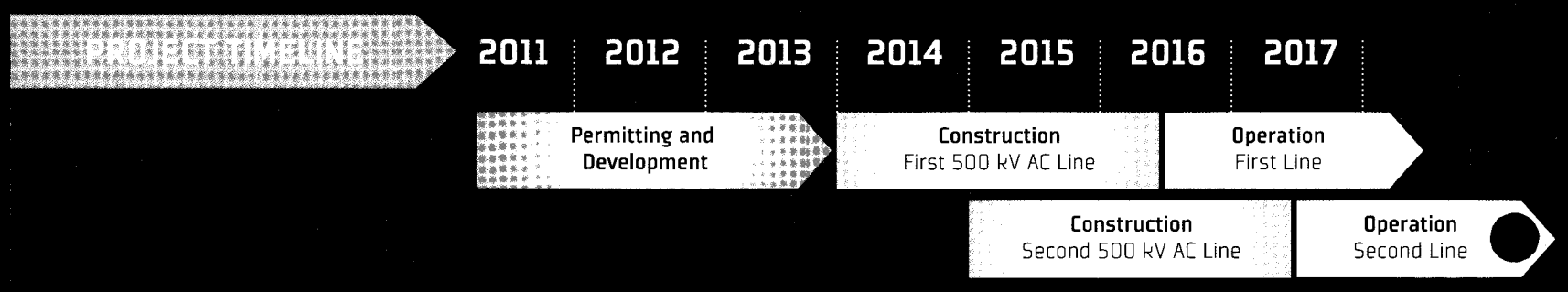
About the SunZia Southwest Transmission Project in Arizona

The SunZia Southwest Transmission Project ("SunZia" or "the Project") will consist of two, new 500 kilovolt (kV), alternating current (AC) transmission lines that will be capable of delivering up to 3,000 megawatts (MW) from new, renewable generation projects, which could power more than 1,000,000 homes or a city the size of 2.5 million people. The Project includes five proposed electrical substations, of which, two are located in Arizona. The substations will interconnect with the existing transmission system and provide on and off ramps for delivery of electricity from wind, solar, and geothermal projects. The estimated cost to construct two 500 kV transmission lines — each crossing a distance of over 150 miles within Arizona — and two substations is over $450 million.

The National Electric Transmission Congestion Study (US Department of Energy, December 2009) characterizes the need to resolve current transmission congestion as "urgent," as demonstrated by the large number of both wind and solar projects that have applied for interconnection to the transmission grid, but cannot be built due to insufficient transmission capacity.

New electric transmission lines bring significant economic contributions to the regional area where they are built. SunZia will benefit several counties in Arizona (See Map). These counties rely heavily on agriculture and related activities, tourism, mining, utilities, or the presence of state or federal government activities. The economies of these counties have been particularly affected by the economic downturn. Construction and operation of SunZia will create millions of dollars in local investment and thousands of new jobs.

Development of wind, solar, and geothermal projects will result in the creation of jobs, substantial local investment, and sources of sustainable energy. The Desert Southwest contains substantial amounts of stranded, undeveloped renewable energy. SunZia will interconnect Arizona's renewable energy resources with customers throughout the West and enhance the reliability of the existing transmission system.



Cochise County

SunZia will enable delivery of Cochise County's renewable resources. Renewable energy projects enabled by SunZia could request interconnection to SunZia at any point. The University of Arizona and New Mexico State University identified positive economic impacts within Cochise County created by SunZia. The following table presents the estimated economic contributions associated with four types of potential renewable projects[3] in Cochise County.

ECONOMIC CONTRIBUTIONS[3] AT A GLANCE

		Solar PV 100MW	Solar Thermal 160MW	Wind 100MW	Geothermal 50MW
DURING CONSTRUCTION	Jobs[1]	1,420	1,050	500+	500+
	Wages & Salaries	$95.9 million	$69.3 million	$31.3 million	$33.5 million
	Local Tax Revenues	$1.2 million	$1.1 million	$0.6 million	$0.6 million
	Jobs	12	28	9	24
	Annual Wages & Salaries	$0.8 million	$1.7 million	$0.6 million	$1.7 million
	Local Property Taxes[2]	$12 million	$18.6 million	$6.2 million	$5.7 million

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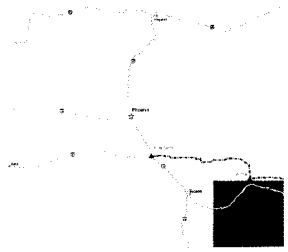
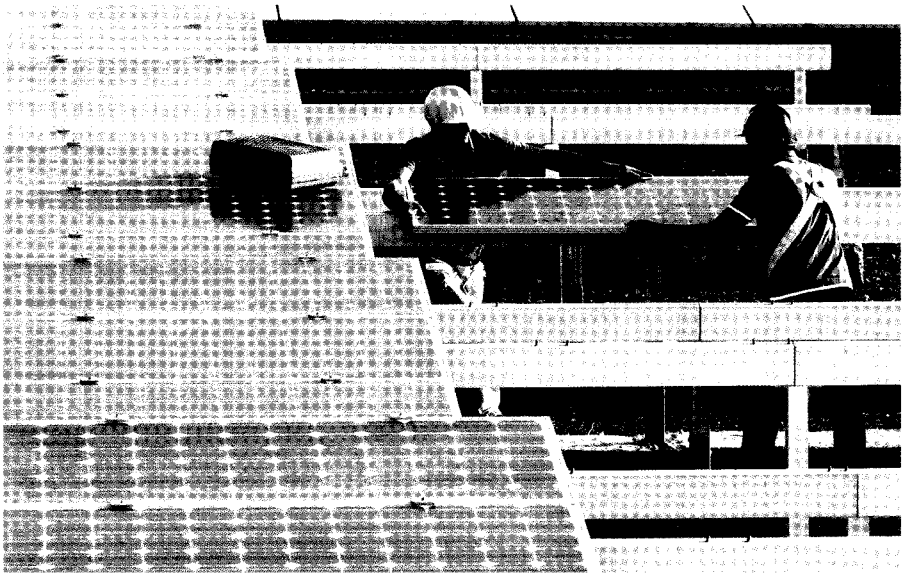


Since 2007, one out of 10 jobs in Arizona no longer exists, and Cochise County's unemployment rate was 8.4 percent in 2010. As an example of the opportunity created by SunZia and based on the table on the reverse, if the County attracts the development of 300 MW of solar PV and 160 MW of solar thermal projects, then the following economic contributions could occur:

- **Over 5,310 jobs[1] during construction**
- **Over $355 million in estimated wages and salaries (including benefits) during construction**
- **Over $4.5 million in local tax revenues during construction**
- **Nearly 65 jobs during operation**
- **Over $4 million in estimated wages and salaries (including benefits) during operation**
- **Nearly $55 million in local property tax revenues[2]**



SunZia will create job opportunities through construction of two transmission lines, as well as fostering the development of local renewable energy projects.

"Southeast Arizona is ideal territory for the development of renewable energy projects. We have abundant resources, inexpensive land and an available workforce. All that's needed are transmission projects like SunZia that will allow independent generation projects to connect with the grid and deliver electricity to the marketplace. And the project's own construction and revenue impacts will be a big boost to our local economy."
George Scott, Southeast Arizona Economic Development Group

See the full Economic Impact Assessment[4] reports at www.SunZia.net

[1] Construction jobs are measured in man-years.

[2] Accumulated during construction and the first 5 years of operation.

[3] Because the number, location and type of potential renewable generation projects are unknown, the economic impact analysis analyzed four specific example projects to estimate economic contributions.

[4] The information presented herein is based on Scenario 2 and the route combination of Arizona Route A and New Mexico West Route (shown in the Economic Impact Assessment alignment map) within the Economic Impact Assessment report dated April 2011. Economic impact information pertaining to the potential energy generation projects is based on the Economic Impact Assessment Supplement dated April 2011.

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Economic Impact Assessment prepared by

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Tucson, Arizona

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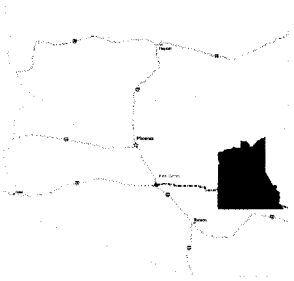
State University
Las Cruces, New Mexico

SunZia in Graham County



The University of Arizona and New Mexico State University identified positive economic impacts within Graham County created by SunZia, including:

- **Over 810 jobs[1] during construction**
- **$60 million in estimated wages and salaries (including benefits) during construction**
- **Over $3 million in local tax revenues during construction**
- **Over $6 million in local property tax revenues[2]**

Since 2007, one out of 10 jobs in Arizona no longer exists, and Graham County's unemployment rate was 13.5 percent in 2010. Within Graham County, SunZia will create job opportunities through construction of two transmission lines and a proposed substation, and through SunZia's ability to foster development of local renewable energy projects. The following table presents the estimated economic contributions associated with four types of potential renewable projects[3] in Graham County.

ECONOMIC CONTRIBUTIONS[3] AT A GLANCE

		Solar PV 100MW	Solar Thermal 160MW	Wind 100MW	Geothermal 50MW
DURING CONSTRUCTION	Jobs[1]	1,465+	1,085+	500+	495+
	Wages & Salaries	$96.9 million	$69.4 million	$32.1 million	$34.3 million
	Local Tax Revenues	$1.0 million	$0.9 million	$0.5 million	$0.5 million
	Jobs	12	30	9	26
	Annual Wages & Salaries	$0.8 million	$1.7 million	$0.6 million	$1.7 million
	Local Property Taxes[2]	$7.3 million	$11.3 million	$3.8 million	$3.4 million

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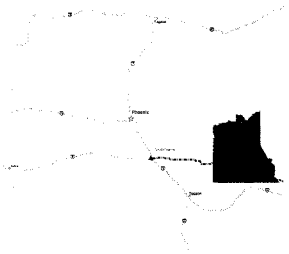

SunZia will enable delivery of Graham County's renewable resources.

Renewable energy projects enabled by SunZia could request interconnection to SunZia at any point. Additionally, SunZia includes a proposed substation in Graham County, where renewable energy projects could interconnect to SunZia.

As an example of the opportunity created by SunZia and based on the table on the reverse, if the County attracts the development of 300 MW of solar PV and 160 MW of solar thermal projects, then the following jobs could be created:

- **Over 5,480 construction jobs**[1]
- **Over 65 permanent jobs**

SunZia will create job opportunities through construction of two transmission lines and a proposed substation, and through SunZia's ability to foster development of local renewable energy projects.

"This is precisely the kind of project that must be built to make solar and other renewable energy sources more viable... It would provide critically needed transmission capacity through New Mexico and Arizona. I strongly support such enhanced transmission as an essential component of a comprehensive strategy to develop the abundant renewable energy resources of the Southwest."
U.S. Rep. Gabrielle Giffords, Arizona Range News, 2/10/10

See the full Economic Impact Assessment[4] reports at www.SunZia.net

SunZia

Economic Impact Assessment prepared by

THE UNIVERSITY OF ARIZONA.
The University of Arizona
Tucson, Arizona

NM STATE UNIVERSITY
New Mexico
State University
Las Cruces, New Mexico

[1] Construction jobs are measured in man-years.

[2] Accumulated during construction and the first 5 years of operation.

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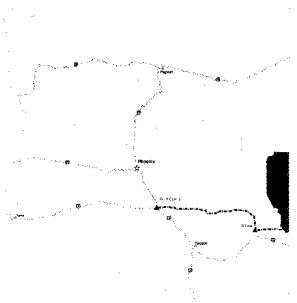
SunZia in Greenlee County



The University of Arizona and New Mexico State University identified positive economic impacts within Greenlee County created by SunZia, including:

- **Nearly 50 jobs[1] during construction**
- **Over $4 million in estimated wages and salaries (including benefits) during construction**
- **Over $50 thousand in local tax revenues during construction**
- **Nearly $0.5 million in local property tax revenues[2]**

Since 2007, one out of 10 jobs in Arizona no longer exists, and Greenlee County's unemployment rate was 11.1 percent in 2010. Within Greenlee County, SunZia will create job opportunities through construction of two transmission lines, and through SunZia's ability to foster development of local renewable energy projects. The following table presents the estimated economic contributions associated with four types of potential renewable projects[3] in Greenlee County.

ECONOMIC CONTRIBUTIONS[3] AT A GLANCE

		Solar PV 100MW	Solar Thermal 160MW	Wind 100MW	Geothermal 50MW
DURING CONSTRUCTION	Jobs[1]	1,130+	710	320+	340+
	Wages & Salaries	$91.3 million	$61.8 million	$29.9 million	$32.1 million
	Local Tax Revenues	$0.2 million	$0.2 million	$0.1 million	$0.1 million
	Jobs	10	25	7	20
	Annual Wages & Salaries	$0.7 million	$1.6 million	$0.5 million	$1.6 million
	Local Property Taxes[2]	$8.4 million	$13.1 million	$4.4 million	$4 million

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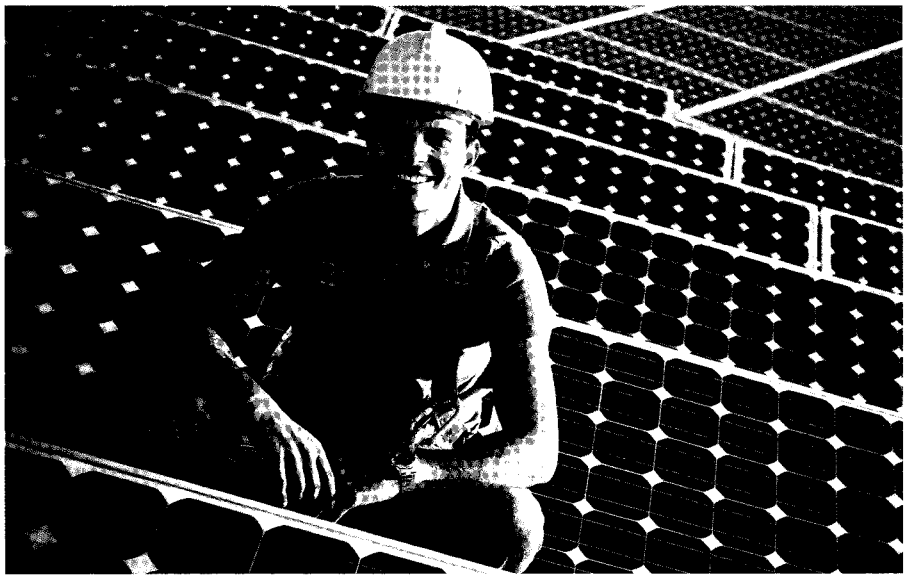
SunZia will enable delivery of Greenlee County's renewable resources.

Renewable energy projects enabled by SunZia could request interconnection to SunZia at any point.

As an example of the opportunity created by SunZia and based on the table on the reverse, if the County attracts the development of 300 MW of solar PV and 160 MW of solar thermal projects, then the following jobs could be created:

- **Over 4,100 construction jobs**[1]
- **Over 55 permanent jobs**



SunZia will create job opportunities through construction of two transmission lines, and through SunZia's ability to foster development of local renewable energy projects.

"This is precisely the kind of project that must be built to make solar and other renewable energy sources more viable... It would provide critically needed transmission capacity through New Mexico and Arizona. I strongly support such enhanced transmission as an essential component of a comprehensive strategy to develop the abundant renewable energy resources of the Southwest."
U.S. Rep. Gabrielle Giffords, Arizona Range News, 2/10/10

See the full Economic Impact Assessment[4] reports at www.SunZia.net

[1] Construction jobs are measured in man-years.

[2] Accumulated during construction and the first 5 years of operation.

[3] Because the number, location and type of potential renewable generation projects are unknown, the economic impact analysis analyzed four specific example projects to estimate economic contributions.

[4] The information presented herein is based on Scenario 2 and the route combination of Arizona Route A and New Mexico West Route (shown in the Economic Impact Assessment alignment map) within the Economic Impact Assessment report dated April 2011. Economic impact information pertaining to the potential energy generation projects is based on the Economic Impact Assessment Supplement dated April 2011.

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Tucson, Arizona

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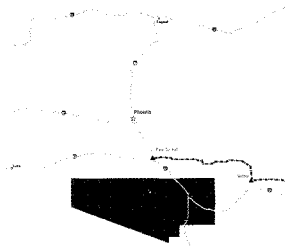
State University
Las Cruces, New Mexico

Pima County



The University of Arizona and New Mexico State University identified positive economic impacts within Pima County created by SunZia, including:

- 30 permanent jobs during operation
- Over $1.5 million per year in wages and salaries during operation

Since 2007, one out of 10 jobs in Arizona no longer exists, and Pima County's unemployment rate was nine percent in 2010. Within Pima County, SunZia will create job opportunities through a proposed maintenance base, and through SunZia's ability to foster development of local renewable energy projects. The following table presents the estimated economic contributions associated with four types of potential renewable projects[3] in Pima County.

ECONOMIC CONTRIBUTIONS[3] AT A GLANCE

	Solar PV 100MW	Solar Thermal 160MW	Wind 100MW	Geothermal 50MW
DURING CONSTRUCTION				
Jobs[1]	1,630+	1,250+	590+	590+
Wages & Salaries	$107.3 million	$80.7 million	$37.8 million	$39.7 million
Local Tax Revenues	$1.6 million	$1.4 million	$0.7 million	$0.7 million
ANNUAL OPERATIONS				
Jobs	15	34	11	30
Annual Wages & Salaries	$1.0 million	$1.9 million	$0.7 million	$1.9 million
Local Property Taxes[2]	$11.4 million	$17.8 million	$6 million	$5.4 million

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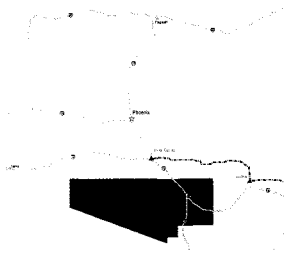
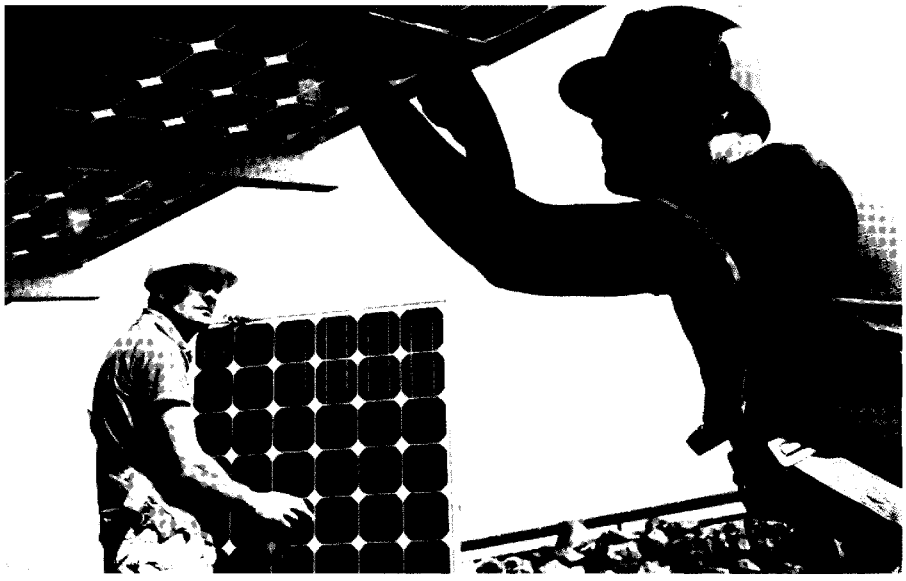


SunZia will enable delivery of Pima County's renewable resources.

Renewable energy projects enabled by SunZia could request interconnection to SunZia at any point.

As an example of the opportunity created by SunZia and based on the table on the reverse, if the County attracts the development of 400 MW of solar PV projects, then the following economic contributions could occur:

- **Over 6,520 jobs[1] during construction**
- **Nearly $430 million in estimated wages and salaries (including benefits) during construction**
- **Over $6 million in local tax revenues during construction**
- **60 jobs during operation**



SunZia will create job opportunities through a proposed maintenance base, and through SunZia's ability to foster development of local renewable energy projects.

"This is precisely the kind of project that must be built to make solar and other renewable energy sources more viable... It would provide critically needed transmission capacity through New Mexico and Arizona. I strongly support such enhanced transmission as an essential component of a comprehensive strategy to develop the abundant renewable energy resources of the Southwest."
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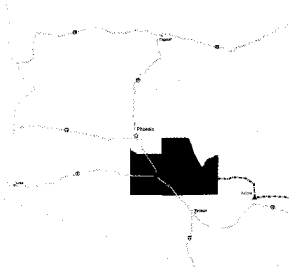
SunZia in Pinal County



The University of Arizona and New Mexico State University identified positive economic impacts within Pinal County created by SunZia, including:

- **Over 430 jobs[1] during construction**
- **$35.5 million in estimated wages and salaries (including benefits) during construction**
- **Over $2.5 million in local tax revenues during construction**
- **Over $4.5 million in local property tax revenues[2]**

Since 2007, one out of 10 jobs in Arizona no longer exists, and Pinal County's unemployment rate was 12 percent in 2010. Within Pinal County, SunZia will create job opportunities through construction of two transmission lines and a substation, and through SunZia's ability to foster development of local renewable energy projects. The following table presents the estimated economic contributions associated with four types of potential renewable projects[3] in Pinal County.

ECONOMIC CONTRIBUTIONS[3] AT A GLANCE

		Solar PV 100MW	Solar Thermal 160MW	Wind 100MW	Geothermal 50MW
DURING CONSTRUCTION	Jobs[1]	1,370	990	450+	460+
	Wages & Salaries	$96.7 million	$71 million	$32.8 million	$35 million
	Local Tax Revenues	$1.5 million	$1.3 million	$0.7 million	$0.7 million
	Jobs	11	28	8	24
	Annual Wages & Salaries	$0.8 million	$1.7 million	$0.6 million	$1.7 million
	Local Property Taxes[2]	$9.6 million	$14.9 million	$5 million	$4.5 million

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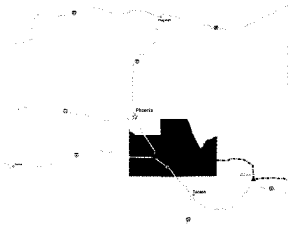
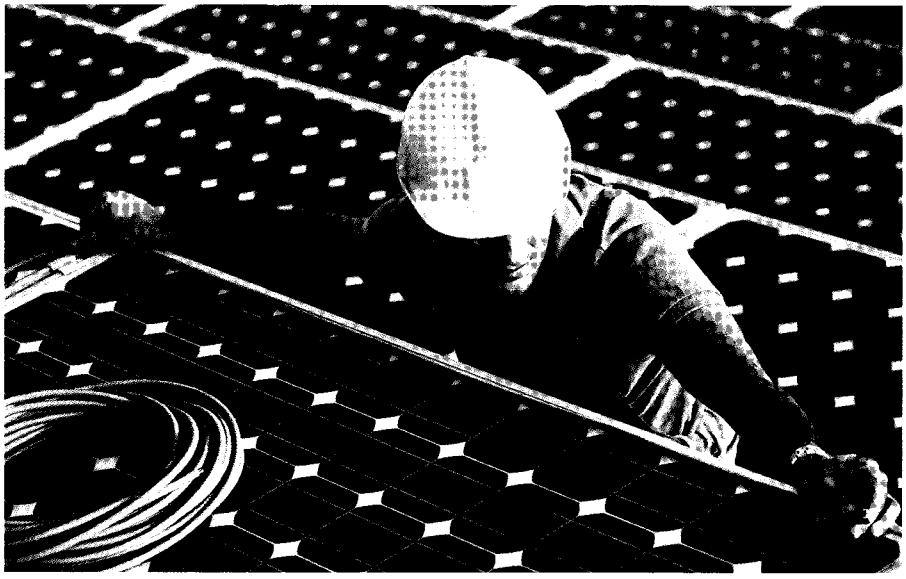


SunZia will enable delivery of Pinal County's renewable resources.

Renew: ɜ energy projects enabled by SunZia could request interconnection to Sun at any point.

As an ɛ nple of the opportunity created by SunZia and based on the table on the ı erse, if the County attracts the development of 400 MW of solar PV projects. :hen the following jobs could be created:

- **Over 5,480 construction jobs**[1]
- **Over 40 permanent jobs**



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"This is precisely the kind of project that must be built to make solar and other renewable energy sources more viable... It would provide critically needed transmission capacity through New Mexico and Arizona. I strongly support such enhanced transmission as an essential component of a comprehensive strategy to develop the abundant renewable energy resources of the Southwest."
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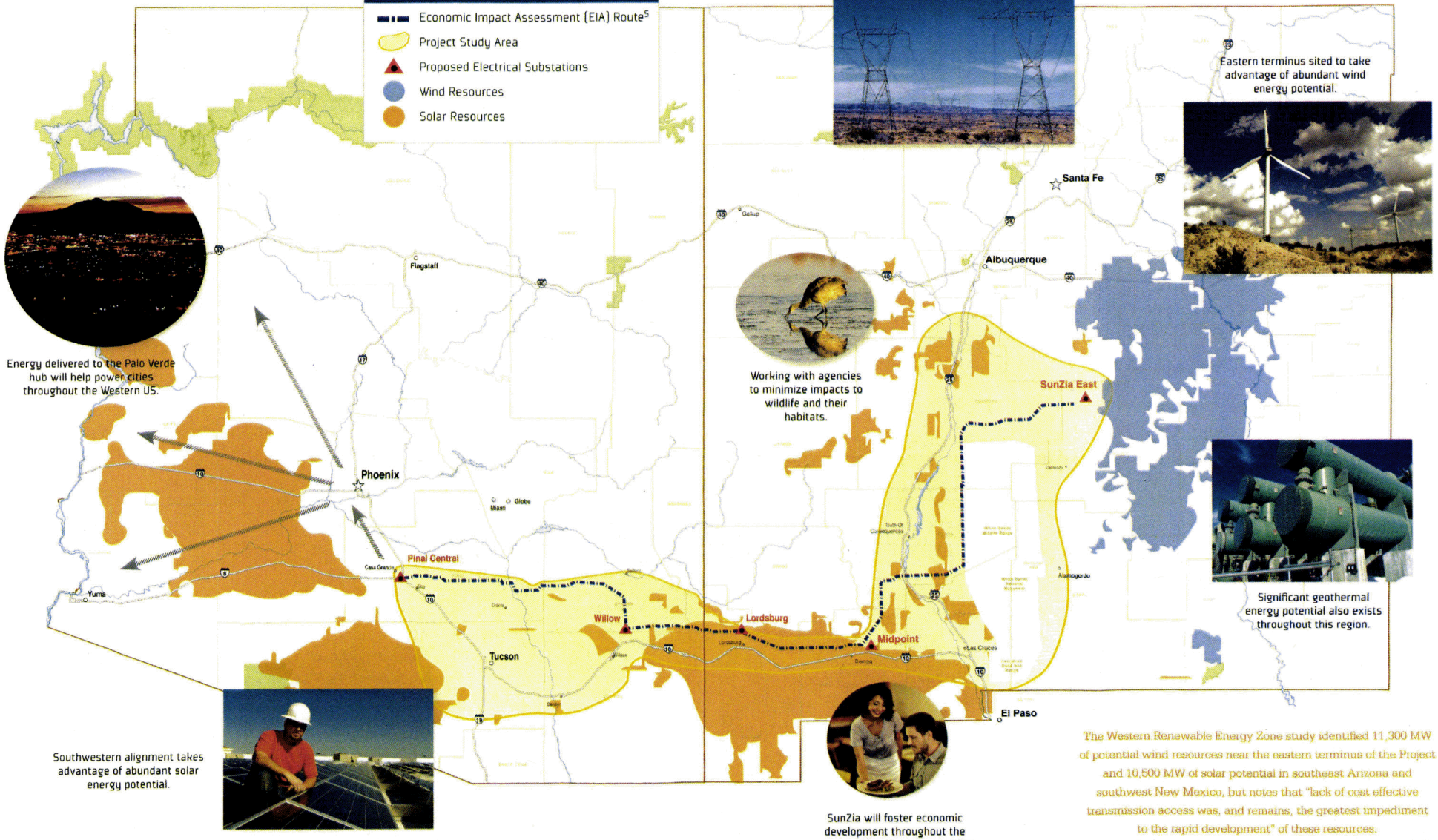
SunZia Project Overview



The Project will consist of two adjacent lines, either both AC, or an AC/DC combination.

Eastern terminus sited to take advantage of abundant wind energy potential.

Energy delivered to the Palo Verde hub will help power cities throughout the Western US.

Working with agencies to minimize impacts to wildlife and their habitats.

Significant geothermal energy potential also exists throughout this region.

Southwestern alignment takes advantage of abundant solar energy potential.

SunZia will foster economic development throughout the communities along the corridor.

The Western Renewable Energy Zone study identified 11,300 MW of potential wind resources near the eastern terminus of the Project and 10,500 MW of solar potential in southeast Arizona and southwest New Mexico, but notes that "lack of cost effective transmission access was, and remains, the greatest impediment to the rapid development" of these resources. (Western Governors' Association and Department of Energy 2009)

Economic Contributions[5] at a Glance

SunZia Alone		Renewable Projects		AC/AC		AC/DC		Renewable Projects		SunZia Alone
2,200	+	16,000	=	**18,200**	JOBS	11,300	=	8,900	+	2,400
$145M	+	$980M	=	**$ 1.12B**	WAGES & SALARIES	$ 700M	=	$540M	+	$160M
$ 25M	+	$ 70M	=	**$ 95M**	STATE & LOCAL TAXES	$ 70M	=	$40M	+	$30M

SunZia Alone		Renewable Projects		AC/AC		AC/DC		Renewable Projects		SunZia Alone
80	+	190	=	**270**	JOBS	190	=	100	+	90
$ 5M	+	$ 11M	=	**$ 16M**	WAGES & SALARIES	$ 11M	=	$5M	+	$6M
$ 1.5M	+	$ 12M	=	**$ 13.5M**	PROPERTY TAXES	$ 11M	=	$7M	+	$4M

These figures present the values associated with the Project and the cumulative values for Project + 610 MW (AC/AC) and Project + 360 MW (AC/DC).

...Unemployment rates of the counties that may be impacted ... ranged from 8.4 to 12.0 percent.

Powering

Since the end of 2007, one out of 10 jobs in Arizona no longer exists. In 2010, the unemployment rates of the counties that may be impacted by the SunZia project ranged from 8.4 to 12.0 percent.

SunZia itself will create:

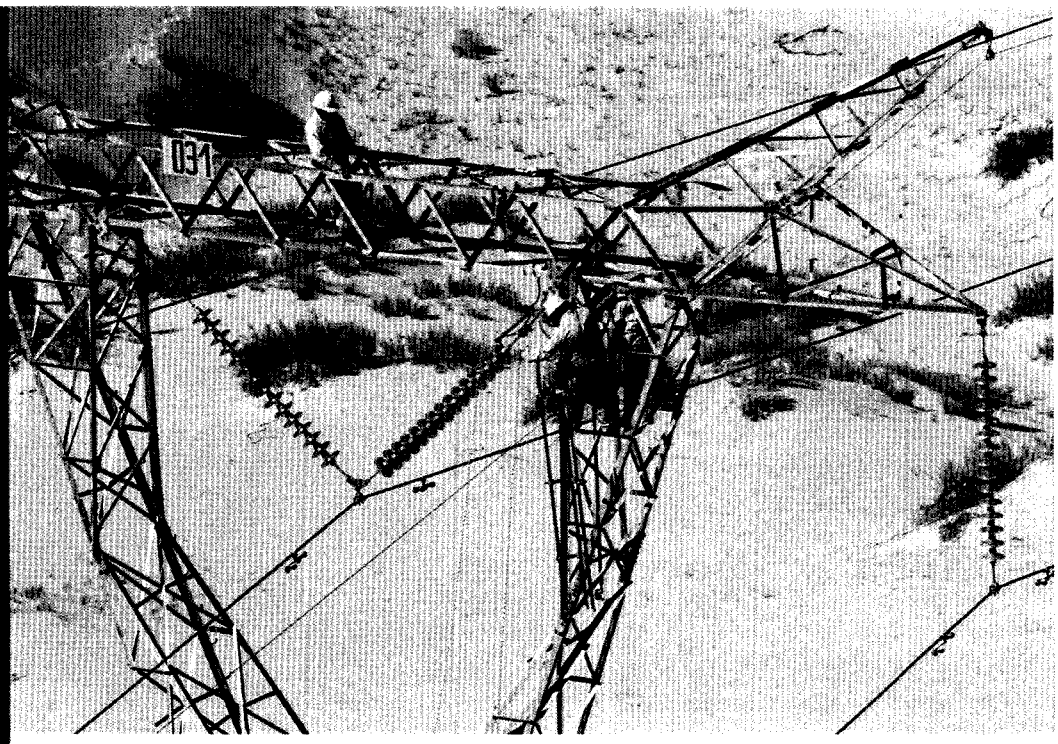
- Over 2,200 jobs[1] during a four-year construction period
- Over 80 permanent jobs

SunZia will enable the development of renewable generation projects.

The development of 610 MW[3] of renewable generation projects could create:

- Over 16,000 jobs[1] during a 2-year construction period
- Over 190 permanent jobs, depending on the number and type of projects

SunZia plans to start construction of the first line in 2013 and the second line in 2014. SunZia estimates a 2 ½ year construction period for each line.



Generating

SunZia itself will create significant investment in local and regional economies through its construction and operation:

- Over $145 million in estimated wages and salaries (including benefits) during construction
- Over $25 million in state and local taxes during construction
- Over $5 million per year in wages and salaries during operation
- Over $1.5 million in property tax revenues[2] during the first year of operation

The development of 610 MW[3] of renewable energy projects could result in:

- Over $980 million in wages and salaries during construction
- Over $70 million in state and local taxes during construction
- Over $11 million per year in wages and salaries during operation
- Over $12 million in property tax revenues[2] during the first year of operation

SunZia is evaluating an option to build one of the two lines as a direct current (DC) line, which will enable the Project to deliver 4,500 MW. If a DC line is constructed, SunZia itself will create the following contributions:

- Over 2,400 construction jobs,[1] $160 million in wages and salaries, and $30 million in state and local tax revenues during construction of the line and substations
- Over 90 permanent jobs, $6 million in wages and salaries, and $4 million in property taxes[2] per year during operation of the line and substations
- Capacity for 360 MW[4] of renewable energy projects, which could add:
  - Over 8,900 jobs[1], $540 million in wages and salaries, and $40 million in state and local taxes during the construction of more renewable projects
  - Over 100 permanent jobs, $5 million in wages and salaries, and $7 million in property taxes[2] per year during operation of the renewable projects

New electric transmission lines bring significant economic contributions to the regional area where they are built.

Sustainable, Renewable Energy

Generation from 610 MW of wind, solar, and geothermal projects will avoid 1.0 million metric tons of carbon emissions, which is equivalent to removing 196,000 cars from our highways.

The addition of wind, solar, and geothermal projects will reduce America's reliance on fossil fuels and create a sustainable source of energy.

The University of Arizona and New Mexico State University identified positive economic impacts created by SunZia (see the full Economic Impact Assessment reports at www.SunZia.net).

Powering Jobs

...Unemployment rates of the counties that may be impacted ... ranged from 8.4 to 12.0 percent.

Since the end of 2007, one out of 10 jobs in Arizona no longer exists. In 2010, the unemployment rates of the counties that may be impacted by the SunZia project ranged from 8.4 to 12.0 percent.

SunZia itself will create:

- Over 2,200 jobs[1] during a four-year construction period
- Over 80 permanent jobs

SunZia will enable the development of renewable generation projects.

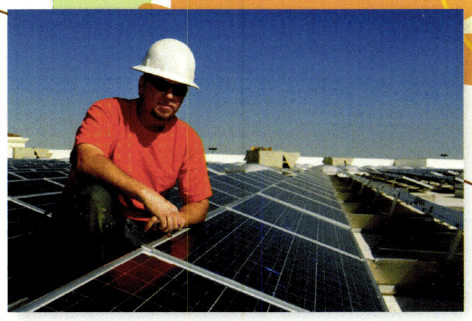
The development of 610 MW[3] of renewable generation projects could create:

- Over 16,000 jobs[1] during a 2-year construction period
- Over 190 permanent jobs, depending on the number and type of projects

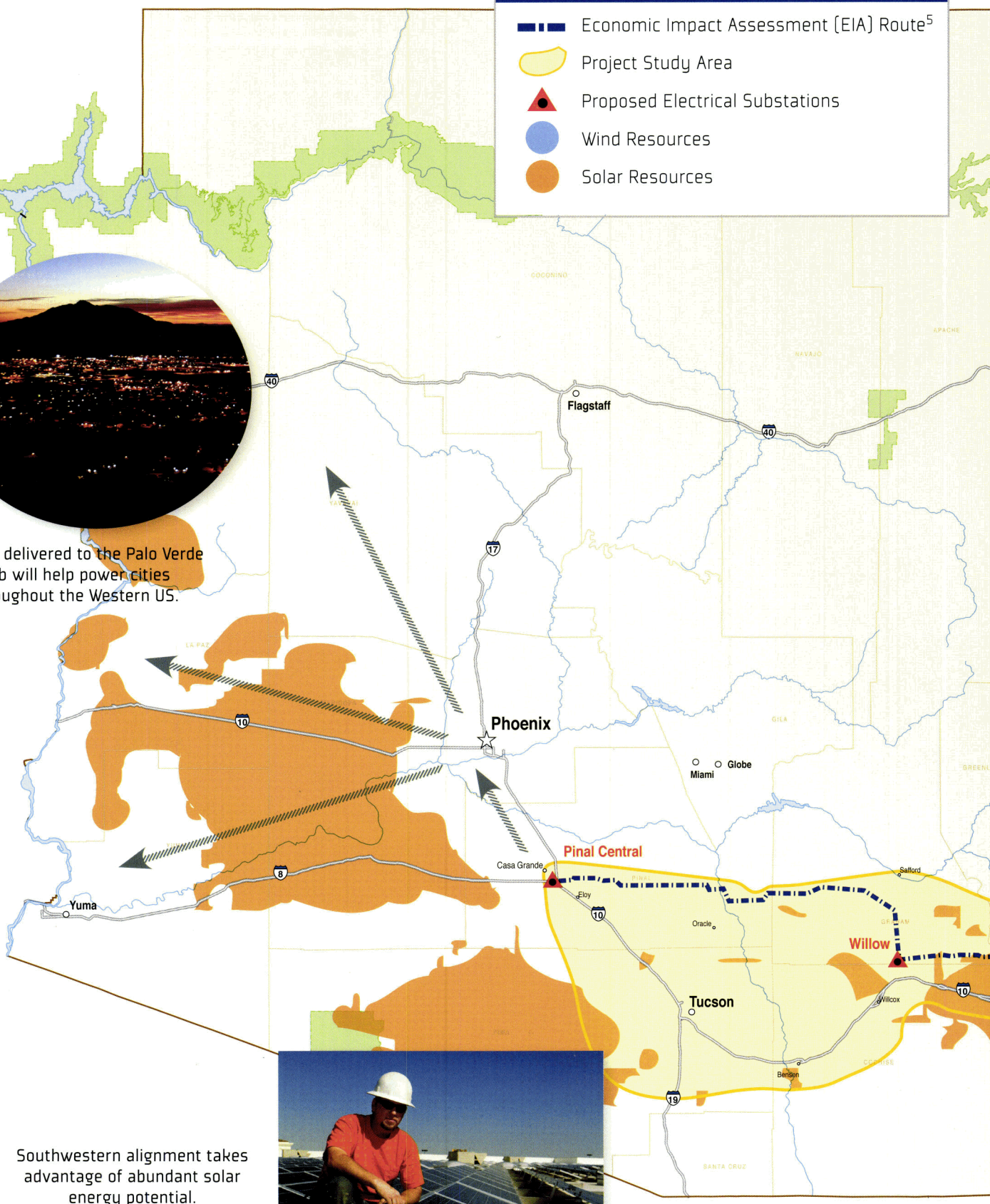
SunZia plans to start construction of the first line in 2013 and the second line in 2014. SunZia estimates a 2 ½ year construction period for each line.

SunZia Project Overview

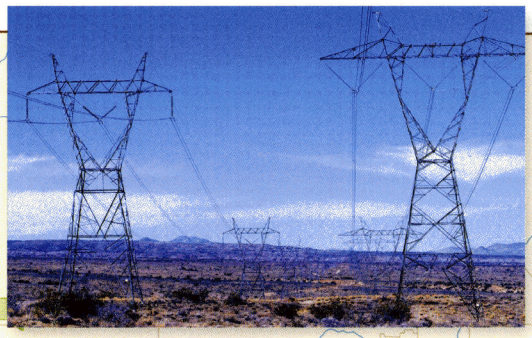
Energy delivered to the Palo Verde hub will help power cities throughout the Western US.



Southwestern alignment takes advantage of abundant solar energy potential.



The Project will consist of two adjacent lines, either both AC, or an AC/DC combination.



Eastern terminus sited to take advantage of abundant wind energy potential.

Working with agencies to minimize impacts to wildlife and their habitats.

Significant geothermal energy potential also exists throughout this region.

SunZia will foster economic development throughout the communities along the corridor.

The Western Renewable Energy Zone study identified 11,300 MW of potential wind resources near the eastern terminus of the Project and 10,500 MW of solar potential in southeast Arizona and southwest New Mexico, but notes that "lack of cost effective transmission access was, and remains, the greatest impediment to the rapid development" of these resources. (Western Governors' Association and Department of Energy 2009)

Economic Contributions[5] at a Glance

DURING CONSTRUCTION

SunZia Alone		Renewable Projects		AC/AC		AC/DC		Renewable Projects		SunZia Alone
2,200	+	16,000	=	**18,200**	JOBS	**11,300**	=	8,900	+	2,400
$145M	+	$980M	=	**$ 1.12B**	WAGES & SALARIES	**$ 700M**	=	$540M	+	$160M
$ 25M	+	$ 70M	=	**$ 95M**	STATE & LOCAL TAXES	**$ 70M**	=	$40M	+	$30M

DURING OPERATIONS AND MAINTENANCE (per year)

SunZia Alone		Renewable Projects		AC/AC		AC/DC		Renewable Projects		SunZia Alone
80	+	190	=	**270**	JOBS	**190**	=	100	+	90
$ 5M	+	$ 11M	=	**$ 16M**	WAGES & SALARIES	**$ 11M**	=	$5M	+	$6M
$ 1.5M	+	$ 12M	=	**$ 13.5M**	PROPERTY TAXES	**$ 11M**	=	$7M	+	$4M

These figures present the values associated with the Project and the cumulative values for Project + 610 MW (AC/AC) and Project + 360 MW (AC/DC).

Generating Local Investment

SunZia itself will create significant investment in local and regional economies through its construction and operation:

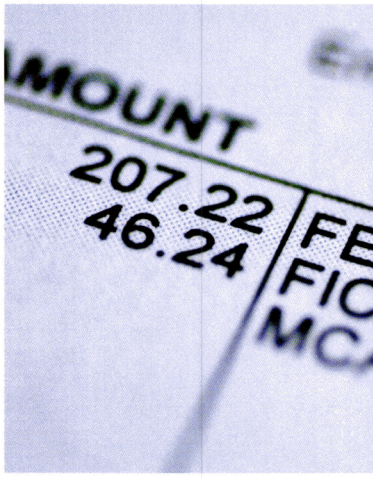
- Over $145 million in estimated wages and salaries (including benefits) during construction
- Over $25 million in state and local taxes during construction
- Over $5 million per year in wages and salaries during operation
- Over $1.5 million in property tax revenues[2] during the first year of operation

The development of 610 MW[3] of renewable energy projects could result in:

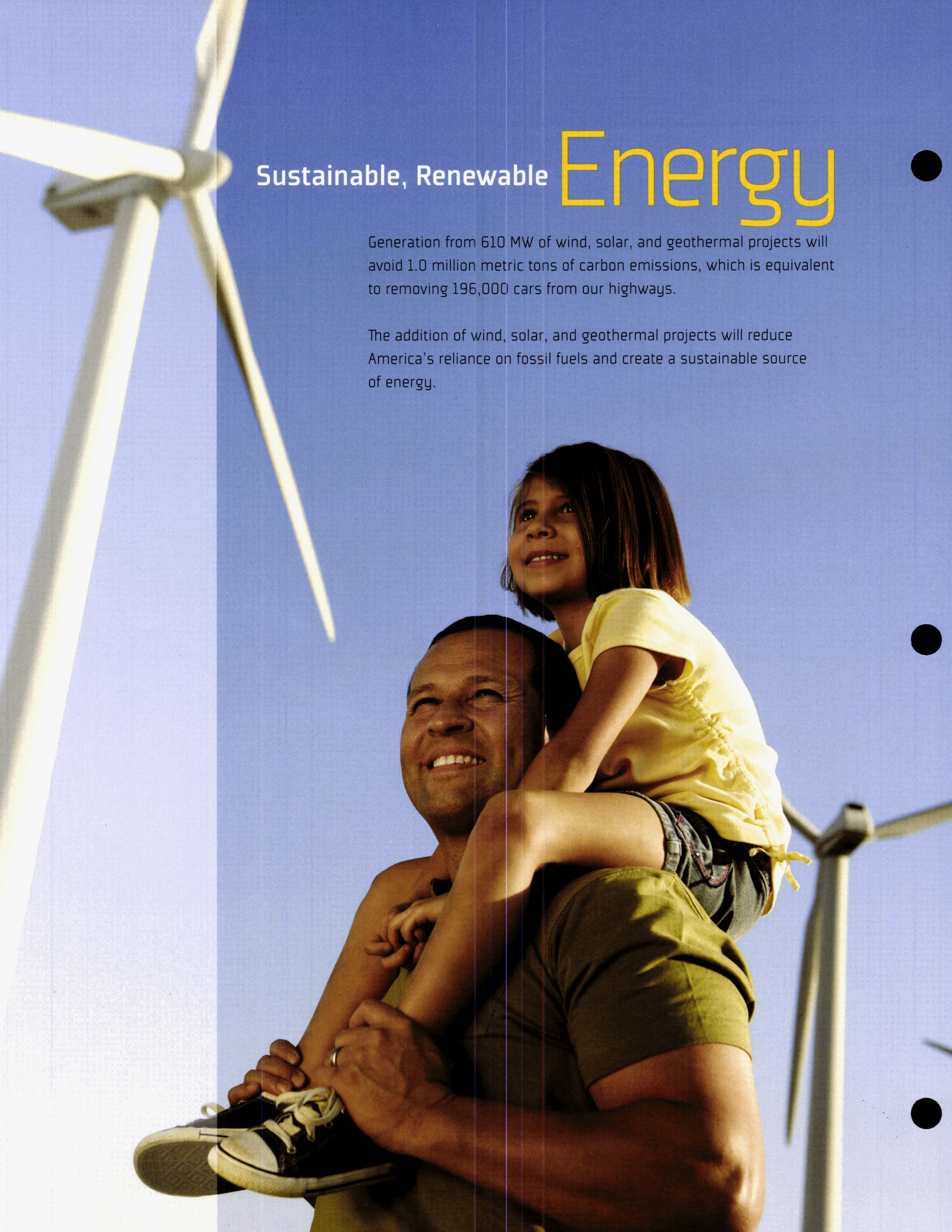
- Over $980 million in wages and salaries during construction
- Over $70 million in state and local taxes during construction
- Over $11 million per year in wages and salaries during operation
- Over $12 million in property tax revenues[2] during the first year of operation

SunZia is evaluating an option to build one of the two lines as a direct current (DC) line, which will enable the Project to deliver 4,500 MW. If a DC line is constructed, SunZia itself will create the following contributions:

- Over 2,400 construction jobs,[1] $160 million in wages and salaries, and $30 million in state and local tax revenues during construction of the line and substations
- Over 90 permanent jobs, $6 million in wages and salaries, and $4 million in property taxes[2] per year during operation of the line and substations
- Capacity for 360 MW[4] of renewable energy projects, which could add:
  - Over 8,900 jobs[1], $540 million in wages and salaries, and $40 million in state and local taxes during the construction of more renewable projects
  - Over 100 permanent jobs, $5 million in wages and salaries, and $7 million in property taxes[2] per year during operation of the renewable projects



New electric transmission lines bring significant economic contributions to the regional area where they are built.



Sustainable, Renewable Energy

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The addition of wind, solar, and geothermal projects will reduce America's reliance on fossil fuels and create a sustainable source of energy.

For more information, please visit www.sunzia.net

Economic Impact Assessment prepared by

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New Mexico State University
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THE UNIVERSITY OF ARIZONA®

NM STATE UNIVERSITY

Footnotes

[1] Construction jobs are measured in man-years. For example, 6,200 jobs over four years is equivalent to an average of 1,550 jobs for each of the four years.

[2] Indicates property tax revenues during the first year of operation. Property tax revenues decline 4% per year thereafter.

[3] The 610 MW generation scenario assumes six renewable energy projects within Arizona. The remaining capacity of the Project is assumed to be consumed by renewable generation projects in New Mexico and "other" generation sources in either state. The potential contributions are underestimated since the analysis did not analyze contributions for the "other" generation. The estimated construction cost of six renewable projects is $2.7 billion.

[4] The 360 MW generation scenario assumes three renewable energy projects within Arizona. The remaining capacity of the Project is assumed to be consumed by renewable generation projects in New Mexico and "other" generation sources in either state. The potential contributions are underestimated since the analysis did not analyze contributions for the "other" generation. The estimated construction cost of three renewable projects is $1.6 billion.

[5] The information presented herein is based on Scenario 2 and the route combination of Arizona Route A and New Mexico West Route (shown in the Economic Impact Assessment alignment map) within the Economic Impact Assessment report dated April 2011. Economic impact information pertaining to the potential energy generation projects is based on the Economic Impact Assessment Supplement dated April 2011.

BEFORE THE
ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF SUNZIA TRANSMISSION LLC, IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE SUNZIA SOUTHWEST TRANSMISSION PROJECT, WHICH INCLUDES THE CONSTRUCTION OF TWO NEW 500 KV TRANSMISSION LINES AND ASSOCIATED FACILITIES ORIGINATING AT A NEW SUBSTATION (SUNZIA EAST) IN LINCOLN COUNTY, NEW MEXICO, AND TERMINATING AT THE PINAL CENTRAL SUBSTATION IN PINAL COUNTY, ARIZONA. THE ARIZONA PORTION OF THE PROJECT IS LOCATED WITHIN GRAHAM, GREENLEE, COCHISE, PINAL, AND PIMA COUNTIES.	DOCKET NO. L-00000YY-15031800171 Siting Case No. 171 **CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY**

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

A. Introduction

Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission Line Siting Committee ("Committee") held public hearings on October 19-21, 2015, in Willcox, Arizona, on October 22-23 and November 2-3, 2015, in Tucson, Arizona, on November 4-5, 2015, in Casa Grande, Arizona, and on November 16-20, 2015, in Florence, Arizona in conformance with the requirements of Arizona Revised Statutes ("A.R.S.") §§ 40-360 *et seq.* for the purpose of receiving evidence and deliberating on the September 2, 2015 Application of SunZia Transmission, L.L.C. ("Applicant") for a Certificate of Environmental Compatibility ("Certificate") in the above-captioned case ("Project").

The following members and designees of members of the Committee were present at one or more of the hearings for the evidentiary presentations and/or the deliberations:

Thomas K. Chenal	Chairman, Designee for Arizona Attorney General, Mark Brnovich
Steve Olea	Designee of the Chairman, Arizona Corporation Commission
Ian Bingham	Designee for Director, Arizona Department of Environmental Quality
Lisa Williams	Designee for Director Arizona Department of Water Resources
Jack Haenichen	Appointed Member
David L. Eberhart	Appointed Member
Mary Hamway	Appointed Member
Jeff McGuire	Appointed Member
Patricia Noland	Appointed Member
Jim Palmer	Appointed Member

The Applicant was represented by Albert H. Acken and Samuel Lee Lofland, Ryley Carlock & Applewhite, and Lawrence V. Robertson, Jr., Of Counsel to Munger Chadwick, P.L.C. The following parties were granted intervention pursuant to A.R.S. § 40-360.05: _____.

At the conclusion of the hearings, the Committee, after considering the (i) Application, (ii) evidence, testimony and exhibits presented by the Applicant and intervenors and (iii) comments of the public, and being advised of the legal requirements of A.R.S. §§ 40-360 through 40-360.13, upon motion duly made and seconded, voted __ to __ to grant the Applicant this Certificate for construction of the Project.

B. <u>Overview Project Description</u>

The Project includes the construction and operation of two new 500 kilovolt (kV) interstate transmission lines and associated Project facilities originating at a new substation (SunZia East) in Lincoln County, New Mexico and terminating at the Pinal Central Substation in Pinal County, Arizona. This Certificate approves construction of the Project within the State of Arizona. The Project as approved herein consists of two (2) new, single-circuit 500 kV transmission lines and associated facilities including a new 500kV

substation ("500 kV Willow Substation"), and a direct current (DC) converter station. All Project components are located within Greenlee, Graham, Cochise, Pima and Pinal counties and the City of Coolidge. A general location map of the Project is depicted in Exhibit A to the Application.

The approved right-of-way for each transmission line is a 200 foot wide right-of-way within a 2,500 foot wide corridor. There will typically be a 50-foot separation between the two (2) rights-of-way. However, in some locations the separation may be up to 1,000 feet to avoid or traverse adjacent terrain features or heavy equipment limitations, and to preserve critical habitat, existing land uses and important cultural resources. At least one of the two 500 kV transmission lines will be constructed and operated as an alternating current (AC) facility; the other transmission line will be either an AC or DC facility. As contemplated and provided for in this Certificate, the two (2) transmission lines may be constructed at different points in time.

In addition, the Project includes construction of the new 500 kV Willow Substation on lands managed by the Arizona State Land Department (ASLD) in Graham County, Arizona. The location of the 500 kV Willow Substation is approximately three miles north of the Cochise County line and approximately 1.1 miles east of US Highway 191 as depicted in Exhibit A to the Application. The Project terminates at the existing Pinal Central Substation, which was approved by the Arizona Corporation Commission ("Commission") in 2005 (Siting Case No. 126 Decision No. 68093) and thereafter constructed by Salt River Project. The Pinal Central Substation is located approximately 7.5 miles east of Interstate 10 on privately owned land within the City of Coolidge, Arizona. These two (2) substations will provide Arizona utilities and load centers with access to renewable energy transmitted on the Project's two (2) transmission lines.

Finally, a DC converter station will be required if the 500kV DC transmission line option is utilized, in order to convert the flow of electricity from DC to AC, and thereby allow the DC line to deliver energy to the Pinal Central Substation. The converter station herein approved would be constructed within a fenced parcel of up to 45 acres, located

within the 2,500 foot wide corridor, no more than 1 mile east of the Pinal Central Substation, as depicted in Exhibit G, Figure G-3-3. The interconnection between the Pinal Central Substation and the DC converter station would require two (2) 500kV AC transmission lines, which also would be constructed within the 2,500 foot wide corridor.

Typical Project design features and details, including structure diagrams anticipated for the Project, are provided in Exhibit G to the Application.

C. Approved Project Route Description

The route herein approved (Route) is a total of 199 miles in length within Arizona, and will be parallel to approximately 117 miles of existing or designated utility corridors. The Route crosses the New Mexico-Arizona state line from Hidalgo County, New Mexico into Greenlee County, Arizona, approximately three miles north of the Cochise County line. The Route then proceeds east to west for approximately 37 miles from the state line into Graham County south of the Hot Well Dunes Recreation Area, and continues through the San Simon Valley to the Willow-500 kV Substation, located approximately 3 miles north of the Cochise County line and 1 mile east of US Highway 191 in Graham County, Arizona.

The Route then proceeds southwest from the Willow-500 kV Substation, parallel to two(2) 345 kV transmission lines operated by Tucson Electric Power Company (TEP) for approximately 47 miles, and crosses two (2) pipelines and US Route 191. The Route then crosses the TEP 345 kV lines approximately 1 mile west of the San Pedro River and turns northwest and continues through the northeast corner of Pima County into Pinal County, of which approximately 12 miles will be parallel to an existing pipeline corridor. The Route then turns and heads west approximately 2 miles west of San Manuel. The route crosses SR 77 approximately 2 miles north of the community of Oracle, and parallels a 115 kV transmission line for approximately 10 miles to the southwest, to a point adjacent to the Oracle Junction Substation. The Route then proceeds parallel to Arizona Public Service Company's Cholla-Saguaro 500kV transmission line and a Southwest Transmission Cooperative 115kV transmission line for approximately 14 miles and crosses SR 79. The

Route then proceeds northwest, then north and parallel to TEP is Pinal Central-Tortolita 500kV transmission line for approximately 16 miles (Siting Case No. 165, Decision No. 73282). The Route then turns northwest, then west, continuing to parallel the Pinal Central-Tortolita 500kV line and a pipeline corridor for approximately 6 miles. As the Route then heads west, it crosses a Central Arizona Project canal and SR 87 before it proceeds to the Pinal Central Substation, located on the southeast corner of SR 287 and Eleven Mile Corner Road, paralleling the Pinal Central-Tortolita 500 kV line for an additional 12 miles. If one of the lines is constructed as a DC facility, then the Project will include construction of a new DC converter station, which will be located within the requested 2500 foot corridor at a location no more than 1 mile east of the Pinal Central Substation.

CONDITIONS

This Certificate is granted upon the following conditions:

1. The Applicant shall comply with all existing applicable statutes, ordinances, master plans and regulations of any governmental entity having jurisdiction during the construction of the Project, including the United States of America, the Counties of Greenlee, Graham, Cochise, Pima and Pinal, and the City of Coolidge. [CEC Siting Case No. 170]

2. Applicant shall comply with the notice and salvage requirements of the Arizona Native Plant Law (A.R.S. §§ 3-901, et seq.) and shall, to the extent feasible, minimize the destruction of native plants during Project construction. [CEC Siting Case No. 170]

3. Applicant shall comply with the Arizona Game and Fish Department ("AGFD") guidelines for handling protected animal species, should any be encountered during construction. [CEC Siting Case No. 168]

4. The Applicant shall design the transmission lines to incorporate reasonable measures to minimize impacts to raptors. Such design will likely be accomplished through Applicant's compliance with its Avian Protection Plan ("APP"), which will be developed pursuant to the Record of Decision ("ROD") issued by the United States Bureau of Land Management ("BLM") on January 23, 2015. Once completed, the APP will become part

of, and be incorporated into, this Certificate. [CEC Siting Case No. 170]

5. The ROD issued by BLM requires the Applicant to prepare a Plan of Development ("POD") outlining and detailing the relevant construction, mitigation, and restoration requirements for the Project prior to commencing construction on any portion thereof. Where practicable, the POD shall specify that the Applicant (a) use existing roads for construction and access, (b) minimize impacts to wildlife, (c) minimize vegetation disturbance outside of the Project right-of-way, and (d) re-vegetate, unless re-vegetation is waived by the landowner, native areas following construction disturbance. [CEC Siting Case No. 170]

6. The POD shall specify the Applicant's plans for coordination with AGFD and the State Historic Preservation Office ("SHPO"). The Applicant shall use existing roads for construction and access where practicable, consistent with the requirements of the ROD, on any lands traversed within the Arizona portion of the Project. [CEC Siting Case No. 165]

7. Pursuant to the ROD, the Applicant will respond to complaints of line generated radio or television interference by promptly investigating the complaints and implementing appropriate mitigation measures. In addition, the transmission line(s) will be evaluated on a regular basis so that damaged insulators or other line materials that could cause interference are timely repaired or replaced.

8. If any archaeological site, paleontological site, historical site or an object that is at least fifty years old is discovered on state, county or municipal land during the construction of the Project, the Applicant or its representative in charge shall promptly report the discovery to the Director of the Arizona State Museum ("ASM"), and in consultation with the Director, shall immediately take all reasonable steps to secure and maintain the preservation of the discovery, pursuant to A.R.S. § 41-844. Such steps will likely be accomplished through compliance with the Historic Properties Treatment Plan ("HPTP") for archaeological and historical sites, and the Paleontological Resources Monitoring Plan ("PRMP") for paleontological sites, both which will be developed pursuant to the ROD.

Once completed, the HPTP and the PRMP will become part of, and be incorporated into, this Certificate. [CEC Siting Case No. 170]

9. If human remains and/or funerary objects are encountered on private land during the course of any ground-disturbing activities related to the construction of the Project, Applicant shall cease work on the affected area of the Project and notify the Director of the ASM as required by A.R.S. § 41-865. [CEC Siting Case No. 170]

10. Applicant will comply with the HPTP to be developed pursuant to the Programmatic Agreement ("PA") entered into on December 17, 2014, to ensure that pre-construction archaeological testing and monitoring of all ground clearing and disturbing construction activities that may affect historical or cultural sites that are listed, or eligible for listing, on the Arizona Register of Historic Places ("Register") are conducted in full compliance with Arizona and Federal law. In the event a listed or listing-eligible site is discovered, the Applicant will ensure that approved mitigation measures are implemented according to the PA. Applicant shall share results of any archaeological work and findings with the appropriate Tribes. [CEC Siting Case No. 169]

11. Before construction of the Project may commence, the Applicant shall file a copy of each of the following documents with the Commission's Docket Control: (a) PA, (b) HPTP, (c) PRMP, (d) POD and (e) ROD, including any amendments to any of such documents subsequent to the granting of this Certificate. Further, in addition to compliance with the conditions set forth in this Certificate, the Applicant shall comply with the provisions of these documents as applicable to the Arizona portion of the Project.

12. Within one hundred twenty (120) days of the Commission decision approving this Certificate, the Applicant will post signs in or near public rights-of-way giving notice of the Project corridor to the extent authorized by law. The Applicant shall place such signs in prominent locations at reasonable intervals (no more than one-half mile, subject to obtaining permission from the landowner) so that the public is notified along the full length of the Project until the transmission structures are constructed. To the extent practicable, within forty-five (45) days of securing easements or rights-of-way for the Project, the

Applicant shall erect and maintain signs providing public notice that the property is the site of a future transmission line or substation. Such signage shall be no smaller than a normal roadway sign. The signs shall advise:

(a) That the site has been approved for the construction of Project facilities;

(b) The expected date of completion of the Project facilities;

(c) A phone number for public information regarding the Project;

(d) The name of the Project

(e) The name of the Applicant; and

(f) The website of the Project. [CEC Siting Case No. 170]

13. Within one hundred twenty (120) days of the Commission decision granting this Certificate, the Applicant shall make good faith efforts to commence discussions with private landowners, on whose property the Project corridor is located, to identify the specific location for the Project's right-of-way and placement of poles. A description of the good faith efforts and discussions shall be included in the annual compliance-certification letter. [CEC Siting Case No. 170]

14. The Applicant will pursue reasonable efforts to work with private landowners on whose property the Project right-of-way will be located, to mitigate the impacts of the location, construction, and operation of the Project on private land. A description of these reasonable efforts shall be included in the annual compliance certification letter. [CEC Siting Case No. 170]

15. At least ninety (90) days, but not more than three hundred sixty-five (365) days before construction commences on the Project, the Applicant shall provide known homebuilders and developers who are building upon or developing land within a half-mile of the Project with a written description of the Project. The written description shall identify the location of the Project and contain a pictorial depiction of the Project. The Applicant shall also encourage the developers and homebuilders to include this information in their disclosure statements. [CEC Siting Case No. 170]

16. The Applicant shall use non-specular conductor and non-reflective surfaces for the Project's transmission line structures. [CEC Siting Case No. 170]

17. The Applicant will follow the most current Western Electricity Coordinating Council/North American Electric Reliability Corporation planning standards, as approved by the Federal Energy Regulatory Commission, and National Electrical Safety Code construction standards. [CEC Siting Case No. 170]

18. With respect to the Project, the Applicant shall participate in good faith in state and regional transmission study forums to coordinate transmission expansion plans related to the Project and to resolve transmission constraints in a timely manner. [CEC Siting Case No. 170]

19. When Project facilities are located parallel to and within 100 feet of any existing natural gas or hazardous pipeline, the Applicant shall:

a) Ensure grounding and cathodic protection measurements are performed to show that the Project's location parallel to and within 100 feet of such pipeline results in no material adverse impacts to the pipeline or to public safety when both the pipeline and the Project are in operation. The Applicant shall take appropriate steps to ensure that any material adverse impacts are mitigated. The Applicant shall provide to the Commission Staff and file with Docket Control, a copy of the measurements performed and additional mitigation, if any, that was implemented as part of its annual compliance-certification letter; and

b) Ensure that measurements are taken during an outage simulation of the Project that may be caused by the collocation of the Project parallel to and within 100 feet of the existing natural gas or hazardous liquid pipeline. The measurements should either: (i) show that such simulated outage does not result in customer outages; or (ii) include operating plans to minimize any resulting customer outages. The Applicant shall provide a copy of the measurement results to the Commission Staff and file it with Docket Control as part of its annual compliance-certification letter. [CEC Siting Case No. 170]

20. The Applicant shall submit a compliance certification letter annually, identifying progress made with respect to each condition contained in this Certificate, including which conditions have been met. Each letter shall be submitted to Commission's Docket Control commencing on January 31, 2017. Attached to each certification letter shall be documentation explaining how compliance with each condition was achieved. Copies of each letter, along with the corresponding documentation, shall be submitted to the Arizona Attorney General and the Governor's Office of Energy Policy. The requirement for the compliance certification letter shall expire on the date the Project is placed into operation. [CEC Siting Case No. 170]

21. The Applicant shall provide copies of this Certificate to the Counties of Greenlee, Graham, Cochise, Pima and Pinal, the City of Coolidge, SHPO and AGFD. [CEC Siting Case No. 170]

22. This authorization to construct the Project shall expire at two (2) different points in time, unless extended by the Commission, as provided below:

a) The Certificate for the first 500 kV transmission line and related facilities and the 500 kV Willow Substation shall expire ten (10) years from the date this Certificate is approved by the Commission, with or without modification.

b) The Certificate for the second 500 kV transmission line and related facilities shall expire twenty (20) years from the date this Certificate is approved by the Commission, with or without modification.

Construction of each line shall be complete, such that the line is in service within the applicable timeframe. However, prior to the expiration of either time period, the Applicant may request that the Commission extend either or both time limitation(s). [CEC Siting Case No. 170]

23. In the event that the Project requires an extension of either or both term(s) of this Certificate prior to completion of construction, the Applicant shall use reasonable means to notify all landowners and residents within a half-mile radius of the area of the Project, all persons who made public comment at this proceeding who provided a mailing address, and

all parties to this proceeding of the request and the date, time and place of the hearing or Open Meeting during which the Commission will consider the request for extension. [CEC Siting Case No. 170]

24. Any transfer or assignment of this Certificate shall require the assignee or successor to assume in writing all responsibilities of the Applicant listed in this Certificate and its conditions as required by A.R.S. § 40-360.08(A) and R14-3-213(F) of the Arizona Administrative Code. [CEC Siting Case No. 170]

FINDINGS OF FACT AND CONCLUSIONS OF LAW

This Certificate incorporates the following Findings of Fact and Conclusions of Law:

1. The Project aids the state and the southwest region in meeting the need for an adequate, economical and reliable supply of electric power. [CEC Siting Case No. 168]

2. The Project aids the state in preserving a safe and reliable electric transmission system. [CEC Siting Case No. 168]

3. The Project will assist the state in meeting the goal of increasing the use of renewable energy in the state. [CEC Siting Case No. 167]

4. The Project and the conditions placed on the Project in this Certificate effectively minimize the Project's impact on the environment and ecology of the state. [CEC Siting Case Nos. 168 and 170]

5. The conditions placed on the Project in this Certificate resolve matters concerning balancing the need for the Project with its impact on the environment and ecology of the state arising during the course of the proceedings, and, as such, serve as findings and conclusions on such matters. [CEC Siting Case No. 168]

6. The Project is in the public interest because the Project's contribution to meeting the need for an adequate, economical and reliable supply of electric power outweighs the minimized impact of the Project on the environment and ecology of the state. [CEC Siting Case No. 170]

///

DATED this ___ day of _____, 2015.

THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE

By: _____
Thomas K. Chenal, Chairman

SUNZIA SOUTHWEST 500 KV
TRANSMISSION LINE PROJECT
APPLICANT'S PROPOSED ROUTE TOUR SCHEDULE AND PROTOCOL

The Chairman has identified, and requested the development of two separate tour routes:

- Willcox Area Tour (October 21, 2015) and,
- Pinal Central-Oracle Area Tour (November 3, 2015).

The Siting Committee will travel in a chartered coach provided by the Applicant (SunZia), with a driver who will lead the route tour. Mr. Tom Wray, SunZia Project Manager, will provide testimony and be available to answer questions at the points of interest identified below and in the maps included herewith. The attached route tour maps show the tour path and points of interest along the Proposed Route. There will be a 20 minute stop at each point of interest.

Willcox Area Tour - October 21, 2015

The Willcox Area Tour will begin at the Willcox Community Center located at the intersection of N. Austin Blvd., and W. Stewart St. in Willcox, Arizona.

Start of Tour: 8:00 a.m.
Willcox Community Center
312 W. Stewart St. Willcox, AZ 85643 **First Stop #W-1 – 30 minutes**

POINT OF INTEREST #W-1 (32°28'39.72"N 109°39'12.19"W) **8:30 am to 8:50 am**
Proposed Willow-500 kV Substation, 1.1 miles east of US 191, Graham County

- From 312 W. Stewart St., travel to intersection with N. Austin Blvd.
- Turn right (NE) onto N. Austin Blvd. and travel 0.7 miles to W. Rex Allen Dr.
- Turn left and continue on W. Rex Allen Dr. for approximately 0.75 miles to Interstate 10 (I-10).
- Turn right to enter I-10 eastbound, travel approximately 12 miles to Exit 352 US 191.
- At end of ramp turn left (north) towards Safford.
- Follow US 191 for approximately 8 miles to location of the crossing of the Proposed Route.
- Proposed Willow-500 kV Substation will be 1.1 miles to the east.
- Turn around, and travel south on US 191 and proceed to enter I-10 westbound.

Next Stop #W-2 – 35 minutes

POINT OF INTEREST #W-2 (32°21'20.61"N 109°55'37.53"W) **9:25 am to 9:45 am**
Bonita Area/Fort Grant Rd, Cochise County north of Willcox

- Travel on I-10 west for approximately 12 miles to Exit 340, Fort Grant Rd. in Willcox.

- At end of ramp turn right (north).
- Follow Fort Grant Rd. 10 miles to intersection with Proposed Route (transmission line will cross just north of Hardy Rd./Fort Grant Rd. intersection).
- Turn right (east) onto Hardy Rd. and continue (Proposed Route will run parallel to Hardy Rd., on your left) to Nickels Rd.
- Turn right (south) on Nickels Rd. and continue to rejoin Fort Grant Rd., turn left at intersection (south) and continue to enter Interstate 10 westbound.

Next Stop #W-3 – 60 minutes

POINT OF INTEREST #W-3 (32°8'2.04"N 110°17'11.27"W) 10:45 am to 11:05 am

San Pedro River Crossing/N. Cascabel Rd. Cochise County

- Follow Interstate 10 westbound for approximately 30 miles to Exit 306 Pomerene Rd. in Benson.
- At end of ramp turn right and proceed north.
- Travel north on N. Pomerene Rd. for approximately 2 miles. N. Pomerene Rd. will then turn west.
- Travel approximately 0.75 miles, and then turn right to follow N. Pomerene Rd., which will become N. Cascabel Rd.
- Continue on N. Cascabel Rd. for approximately 11 miles to intersection with Proposed Route.

Next Stop #W-4 – 35 minutes

POINT OF INTEREST #W-4 (32°17'28.48"N 110°22'48.53"W) 11:40 am to 12:00 pm

Cascabel Community Center, N. Cascabel Rd. Cochise County

- Continue north on N. Cascabel Rd. on unpaved road for approximately 8 miles. Cascabel Community Center will be on the right.
- Proposed Route will be located generally parallel approximately 3 miles to your left (west).
- Follow N. Cascabel Rd. (south) back to N. Pomerene Rd. and Interstate 10.
- Enter I-10 eastbound and continue for approximately 30 miles to Exit 340 in Willcox, turn right onto W. Rex Allen Dr., and turn right onto N. Austin Blvd to return to the Willcox Community Center.

End Tour: Willcox Community Center – 70 minutes

End Tour at 1:10 pm.

Pinal Central-Oracle Area Tour - November 3, 2015

The Pinal Central-Oracle Area Tour will begin at the Tucson Convention Center located approximately 0.2 miles south of the intersection of S. Church St. and W. Congress St. in Tucson, Arizona.

Start of Tour: 8:00 a.m.
Tucson Convention Center
260 S. Church St. Tucson, AZ 85701 **First Stop #PC-1 – 60 minutes**

POINT OF INTEREST #PC-1 (32°52'8.45"N 111°33'10.33"W) 9:00 am to 9:20 am

Pinal Central Substation, Eleven Mile Corner Rd. Pinal County

- Exit Tucson Convention Center onto S. Church St. and turn left (north).
- Travel approximately 0.2 miles to W. Congress St. and turn left (west).
- Continue on W. Congress St. for approximately 0.4 miles to Interstate 10.
- Turn right onto Interstate 10 westbound.
- Travel on I-10 west for approximately 47 miles to Exit 211 SR 87 North towards Coolidge and Florence.
- Follow SR 87 for approximately 11 miles to Highway 287 and turn left.
- Travel for approximately 3 miles to Eleven Mile Corner Rd. The Proposed Route will be parallel to Highway 287 approximately 0.75 miles to your left (south).
- At Eleven Mile Corner Rd., turn left (south) and travel 0.5 miles to Pinal Central Substation.

Next Stop #PC-2 – 15 minutes

POINT OF INTEREST #PC-2 (32°52'47.37"N 111°26'39.20"W) 9:35 am to 9:55 am

Central Arizona Project Canal (CAP) crossing, Pinal County

- Return to Highway 287 and turn right.
- Travel for approximately 3 miles to S. Arizona Blvd (SR 87). The Proposed Route will be parallel to the right (south) approximately 0.75 miles.
- Continue straight across SR 87 onto E. Steele Rd. and travel approximately 3 miles to N. Wheeler Rd.
- The Proposed Route will be overhead in this location running east/west and will cross the CAP canal approximately 1 mile due east.
- The CAP canal crossing is not accessible by car in this location.

Next Stop #PC-3 – 45 minutes

POINT OF INTEREST #PC-3 (32°36'59.28"N 111°15'28.90"W) 10:40 am to 11:00 am

Park Link Rd./Tortolita-Pinal Central Transmission Line, Pinal County

- Turn around at Wheeler Rd. and continue on E. Steele Rd. back to SR 87 and turn left (south).
- Follow SR 87 south for approximately 11 miles to Interstate 10.
- Enter I-10 eastbound towards Tucson and travel approximately 15.5 miles to Exit 226 Red Rock.
- At end of ramp take a left and travel 0.2 miles to take another left to cross over the freeway.
- Cross over I-10 and turn left (north) at E. Camino Adelante Rd.
- Follow approximately 1.5 miles to E. Park Link Rd. and turn right (east).
- Follow E. Park Link Rd for approximately 5.25 miles to location of Proposed Route crossing.

Next Stop #PC-4 – 30 minutes

POINT OF INTEREST #PC-4 (32°36'20.46"N 110°59'6.24"W) 11:30 am to 11:50 am

Highway 79 intersection, Pinal County

- Continue east on E. Park Link Rd. for approximately 13 miles to its intersection with SR 79. (Proposed Route will be generally parallel at varying distances between approximately 0.2 and 4.3 miles).
- Turn right (south) onto SR 79 and follow for approximately 5.75 miles to location where the Proposed Route crosses the highway.
- Continue south on SR 79 for 4.5 miles to Oracle Junction and intersection with SR 77.

Next Stop #PC-5 – 10 minutes

POINT OF INTEREST #PC-5 (32°35'26.45"N 110°55'15.47"W) 12:00 pm to 12:20 pm

Saddlebrooke Ranch, Hwy 77, Pinal County

- Turn left onto SR 77 towards Oracle.
- Follow SR 77 for 2 miles to the Saddlebrooke Ranch Master Planned Community.
- Turn left onto Saddlebrooke Ranch Dr. to enter the community.
- Pass Gatehouse and continue approximately 0.4 miles towards the Clubhouse.
- Turn left before entering Clubhouse parking lot.
- This road will quickly become unpaved.

- Follow around to the north end of the property approximately 1 mile and turn right to loop back around to Saddlebrooke Ranch Dr.; an additional 2.5 miles. (The Proposed Route will pass approximately 1 mile north of this portion of the property).
- Turn left back onto Saddlebrooke Ranch Dr. to exit the community.
- Turn left onto SR 77 when reached.

Next Stop #PC-6 – 15 minutes

POINT OF INTEREST #PC-6 (32°39'2.38"N 110°43'52.00"W) 12:35 pm to 12:55 pm

Arizona National Trail – Trailhead, Pinal County

- Follow SR 77 for approximately 11 miles passing Oracle to Tiger Mine Rd.
- Turn left onto Tiger Mine Rd.
- Follow for approximately 1.5 miles to the Arizona National Trailhead.
- Follow back to SR 77 and turn right (west).
- **Lunch:** Follow SR 77 for 1 mile and turn left to travel through Oracle on Old Hwy 77, where choices for lunch can be found **(1:05 pm to 2:05 pm)**.
- After lunch, continue west on Old Hwy 77 to intersection with SR 77 and turn left.
- Follow SR 77 towards Oracle Junction for approximately 7 miles.
- At Oracle Junction, continue to follow SR 77 south towards Oro Valley and Tucson for approximately 22 miles to W. Miracle Mile (which is the continuation of SR 77).
- Turn right (west) on W. Miracle Mile and follow for approximately 1.5 miles to I-10.
- Cross over freeway to enter I-10 eastbound and travel approximately 3 miles to Exit 258 Congress St./Broadway Blvd.
- Continue on Broadway Blvd. to S. Church St. approximately 0.5 miles and turn right to return to the Tucson Convention Center.

End Tour: Tucson Convention Center – 50 minutes

With lunch stop in Oracle

End at 2:55 pm

Willcox Area Tour			
From	**To**	**Distance (Miles)***	**Drive Time (Minutes)***
Willcox Community Center	#W-1	20	30
#W-1	#W-2	30	35
#W-2	#W-3	53	60
#W-3	#W-4	13.5	35
#W-4	Willcox Community Center	56.5	70
Total		**173**	**230 (3 hrs 50 min)****

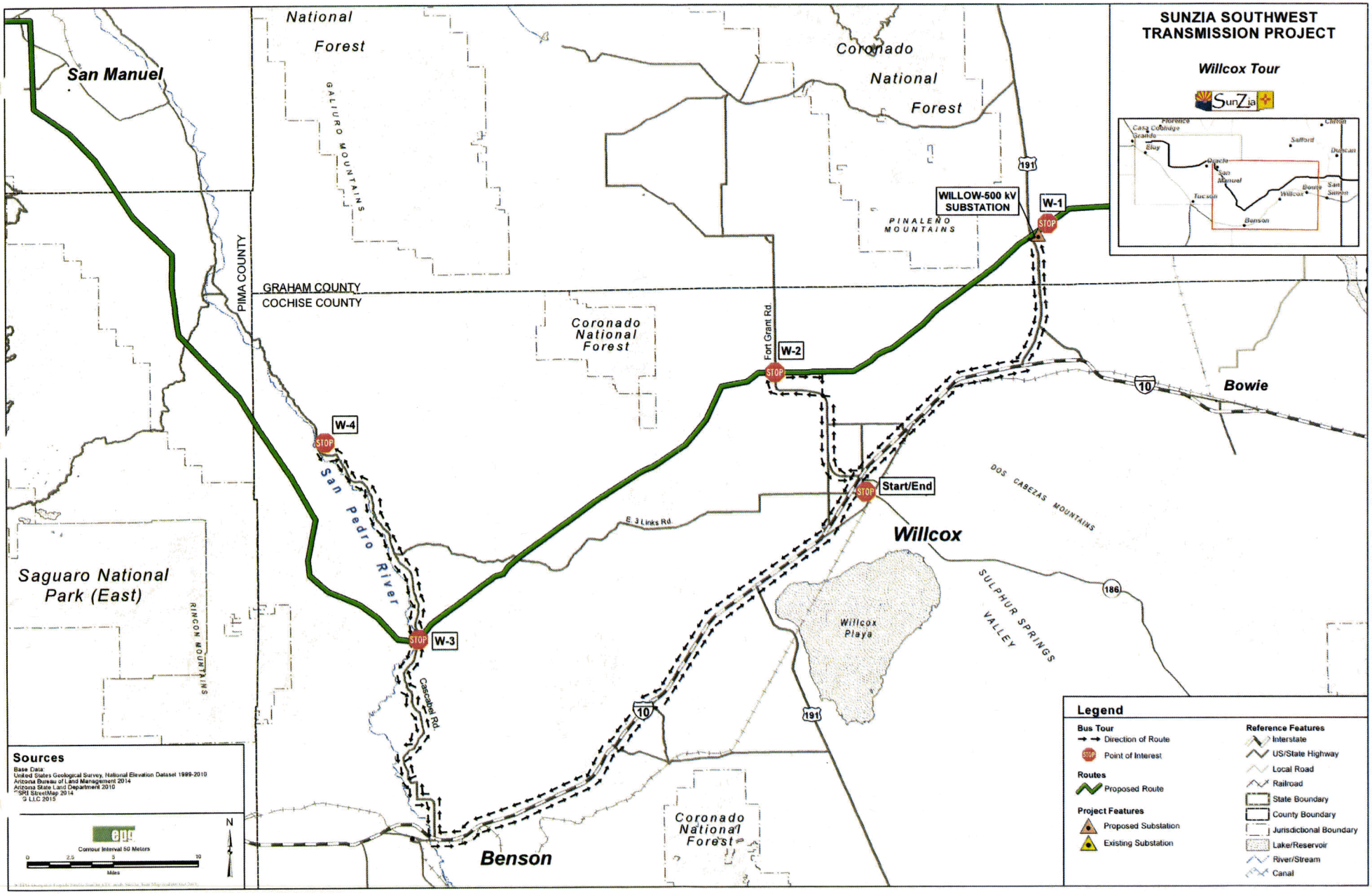
*Times and Distances are Estimated

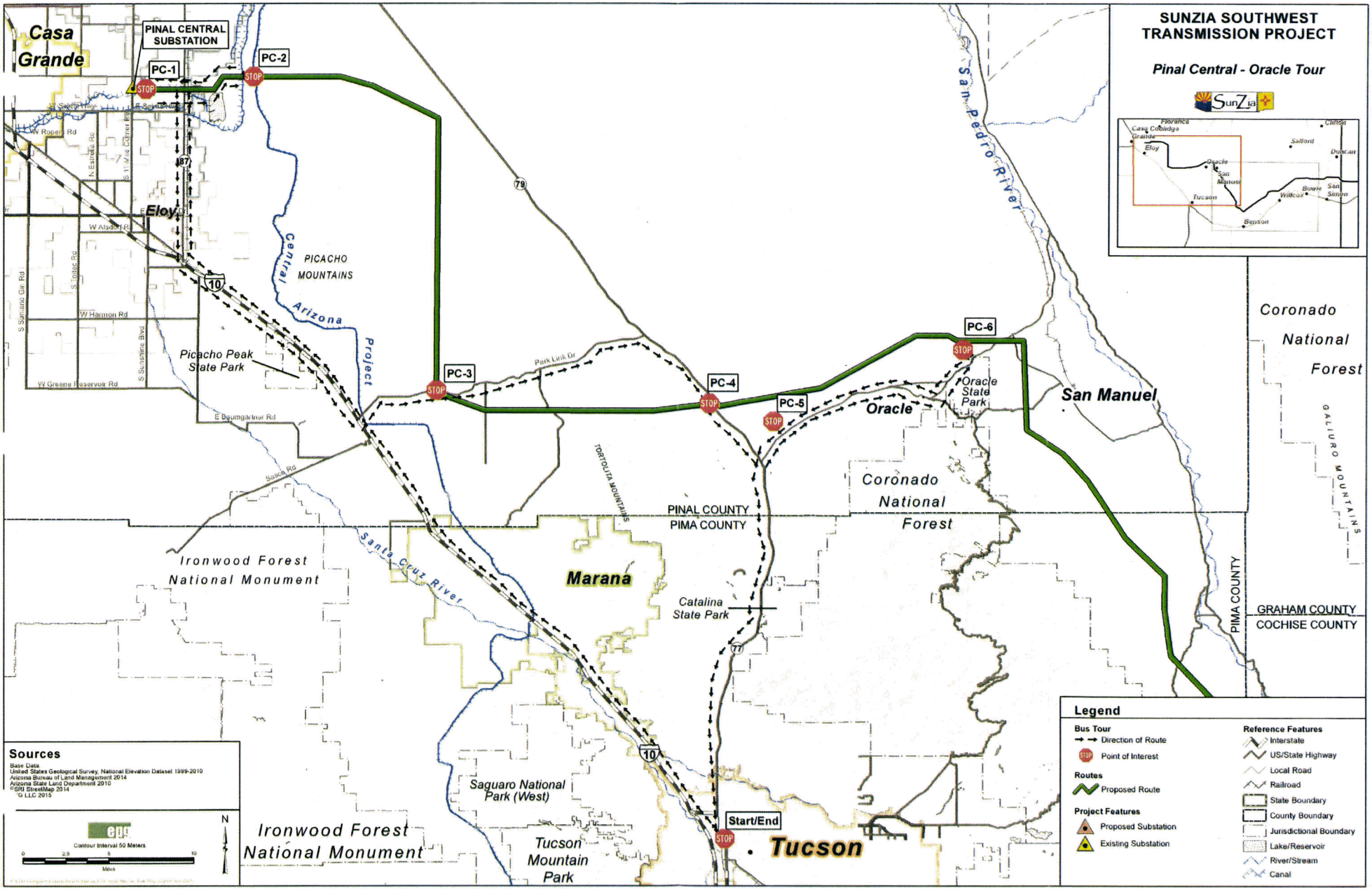
**Without 20 minute stop at each point of interest

Pinal Central - Oracle Area Tour			
From	**To**	**Distance (Miles)***	**Drive Time (Minutes)***
Tucson Convention Center	#PC-1	61	60
#PC-1	#PC-2	6	15
#PC-2	#PC-3	36	45
#PC-3	#PC-4	18.75	27
#PC-4	#PC-5	6.5	8
#PC-5	#PC-6	12.5	17
#PC-6	Tucson Convention Center	36.5	50
Total		**177.25**	**222 (3 hrs 42 min)****

*Times and Distances are Estimated

**Without 20 minute stop at each point of interest


SUNZIA SOUTHWEST TRANSMISSION PROJECT
Willcox Tour
SunZia
National Forest
Coronado National Forest
San Manuel
GALIURO MOUNTAINS
PINALEÑO MOUNTAINS
WILLOW-500 kV SUBSTATION
W-1
W-2
W-3
W-4
Start/End
PIMA COUNTY
GRAHAM COUNTY
COCHISE COUNTY
Fort Grant Rd
Bowie
San Pedro River
E 3 Links Rd
Willcox
DOS CABEZAS MOUNTAINS
Saguaro National Park (East)
RINCON MOUNTAINS
Willcox Playa
SULPHUR SPRINGS VALLEY
Cascabel Rd
Benson
10
191
186
Florence
Casa Grande
Clifton
Safford
Duncan
Globe
Tucson
Willcox
Sierra Vista
Sources
Base Data:
United States Geological Survey, National Elevation Dataset 1999-2010
Arizona Bureau of Land Management 2014
Arizona State Land Department 2010
ESRI StreetMap 2014
G LLC 2015
Contour Interval 50 Meters
Miles
N
Legend
Bus Tour
Direction of Route
Point of Interest
Routes
Proposed Route
Project Features
Proposed Substation
Existing Substation
Reference Features
Interstate
US/State Highway
Local Road
Railroad
State Boundary
County Boundary
Jurisdictional Boundary
Lake/Reservoir
River/Stream
Canal


SUNZIA SOUTHWEST TRANSMISSION PROJECT
Pinal Central - Oracle Tour
SunZia
Casa Grande
PINAL CENTRAL SUBSTATION
PC-1
PC-2
PC-3
PC-4
PC-5
PC-6
STOP
Eloy
W Selma Hwy
W Robert Rd
W Alsdorf Rd
W Hannon Rd
W Greene Reservoir Rd
E Baumgartner Rd
Sasco Rd
Park Link Dr
87
79
10
77
Central Arizona Project
PICACHO MOUNTAINS
Picacho Peak State Park
TORTOLITA MOUNTAINS
Santa Cruz River
Ironwood Forest National Monument
Marana
Catalina State Park
Saguaro National Park (West)
Tucson Mountain Park
Start/End
Tucson
Oracle
Oracle State Park
San Manuel
San Pedro River
Coronado National Forest
GALIURO MOUNTAINS
PINAL COUNTY
PIMA COUNTY
GRAHAM COUNTY
COCHISE COUNTY
Florence
Casa Cobdidge Grande
Eloy
Oracle
San Manuel
Clifton
Safford
Duncan
Bowie
San Simon
Willcox
Tucson
Benson
Legend
Bus Tour
Direction of Route
Point of Interest
Routes
Proposed Route
Project Features
Proposed Substation
Existing Substation
Reference Features
Interstate
US/State Highway
Local Road
Railroad
State Boundary
County Boundary
Jurisdictional Boundary
Lake/Reservoir
River/Stream
Canal
Sources
Base Data:
United States Geological Survey, National Elevation Dataset 1999-2010
Arizona Bureau of Land Management 2014
Arizona State Land Department 2010
©ESRI StreetMap 2014
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0 2.5 5 10
Miles
N

SEP 18 2015

GRAHAM COUNTY PLANNING & ZONING/COMMUNITY DEVELOPMENT
921 Thatcher Boulevard, Safford, AZ 85546
Phone: (928) 428-0410
Fax: (928) 428-8825

18 August 2015

Mickey Siegel, Project Manager
Environmental Planning Group
4141 N. 32nd St., Ste 102
Phoenix, AZ 85018

RE: SunZia Transmission, LLC

Mr. Siegel,

This letter is to inform you that Graham County has no comments or additional information to include in SunZia's application for a Certificate of Environmental Compatibility for the SunZia Southwest Transmission Project.

Further, Graham County will not be intervening.

Sincerely,

Joe Goodman, Planning & Zoning Director
Graham County

Cc: Terry Cooper, County Manager

EXHIBIT
Sun-13
ADMITTED

August 28, 2015

Mickey Siegel
Environmental Planning Group
4141 North 32nd Street, Suite 102
Phoenix, Arizona 85018

Re: SunZia Southwest Transmission Project

Dear Mr. Siegel:

Thank you for the opportunity to comment regarding development plans along the proposed transmission route. Arizona State Parks ("Parks") appreciates the ability to discuss the SunZia Southwest Transmission Project ("Project").

Parks' mission is to manage and conserve Arizona's natural, cultural, and recreational resources for the benefit of the people, both in our parks and through our partners. Given this role, we must responsibly assess all potential impacts to the Parks System.

In consideration of Parks' mission and its interests in the vicinity of the Project, we respectfully request that any forthcoming activities adhere to all applicable laws and are conducted after obtaining the proper permits and authorizations.

In addition, we respectfully advise that Oracle State Park is in the vicinity of the Project. Importantly, after much community effort, the International Dark-Sky Association has named Oracle State Park a Dark Sky Place. This designation has been awarded only forty-two times internationally, and Oracle State Park is one of four certified locations in Arizona. We respectfully request that this important certification be considered, should activities related to the Project occur in the vicinity of Oracle State Park.

Arizona State Parks appreciates being included in this process and welcomes further discussion regarding this matter.

Respectfully,

Sue Black
Executive Director
Arizona State Parks

1300 W. Washington Street • Phoenix, AZ 85007
(602) 547-4174 • Fax (602) 542-4188
AZStateParks.com AZStateParks

Robson COMMUNITIES

SEP 11 2015

Peter M. Gerstman
Executive Vice President
General Counsel
(480) 895-4297
Email: Peter.Gerstman@Robson.com

September 8, 2015

Environmental Planning Group
4141 North 32nd Street, Suite 102
Phoenix, AZ 85018
Attention: Mickey Siegel, Project Manager

Re: SunZia Southwest Transmission Project
ACC Docket No. L-00000YY-15-0318-00171

Dear Mr. Siegel:

I am writing this letter on behalf of Robson Ranch Mountains, LLC ("Robson") in response to your August 12, 2015 letter concerning the SunZia Southwest Transmission Project. As I discussed with Tony De Luca of your company and as I explained in my letter dated August 13, 2012, to the Bureau of Land Management, New Mexico State Office, a portion of the BLM's preferred routing for the proposed SunZia Southwest Transmission Lines goes right through SaddleBrooke Ranch, which is a master planned active adult community. SaddleBrooke Ranch is located north of Oracle Junction in Pinal County, Arizona, between Arizona Highway 77 and Arizona State Highway 79. An aerial photo of the area at issue is attached. The BLM's proposed route in this area is part of the sub-route identified in the BLM's draft environmental impact statement for this project as sub-route 4C2c.

As the developer of SaddleBrooke Ranch, Robson has already invested tens of millions of dollars in the community. The SaddleBrooke Ranch property encompasses more than 2500 acres and upon build-out will include more than 5,000 homes. The vast majority of the SaddleBrooke Ranch property, including the portion of SaddleBrooke Ranch that the BLM-preferred route crosses, has been zoned, is subject to a planned area development overlay district, and is subject to a Phased Protected Development Right Plan with Pinal County.

SaddleBrooke Ranch currently includes, among other things, a sales and design center with 11 furnished models, an 18-hole championship golf course with putting green and driving range, an extensive pickleball complex with 24 courts, a fitness center and spa with over 40,000 square feet that include indoor and outdoor swimming pools, men's and women's hair salons, massage rooms, aerobics and yoga facilities, a learning center, a creative arts room, billiards, and lighted tennis courts. In addition, a Robson affiliate has invested millions of dollars to construct a wastewater treatment facility that treats raw sewage to drinking water standards for recharge to the aquifer and for golf course irrigation. Construction of a large clubhouse is imminent, as is a new Creative Arts Center. Land development work for these new amenities is underway, and vertical construction should begin within a few months. The master plan provides for additional amenities and facilities, including golf and homes, in the vicinity of the area that would be

traversed by the BLM-preferred SunZia route. And, of course, there are hundreds of people living in SaddleBrooke Ranch who have invested significant amounts in their homes for their retirement years.

The addition of two 500 kv transmission lines in the northerly portion of SaddleBrooke Ranch has the potential to significantly affect and impair future development of the project. We understand the general need for appropriate infrastructure to support future development and we support efforts to meet that need. Affiliates of Robson have cooperated fully in the past in the location of electric transmission lines through other Robson Resort Communities when necessary and where appropriate. This, however, is a different case. Without commenting on the vast majority of the BLM's preferred route, there are relatively small adjustments that could be made to the route in the vicinity of SaddleBrooke Ranch that would have significant and positive effects for SaddleBrooke Ranch and for Pinal County.

We understand that there are many considerations and interests the BLM must balance when choosing a route. However, the BLM appears not to have given sufficient consideration to the effect of its preferred route on the SaddleBrooke Ranch master plan, the huge investment being placed at risk by Robson in this project, and the employment considerations relating to SaddleBrooke Ranch. Because of our belief in the long-term potential of the SaddleBrooke Ranch location, as demonstrated by the success of the SaddleBrooke community, which is approximately 7 miles from SaddleBrooke Ranch, Robson made a huge investment in SaddleBrooke Ranch even as other homebuilders were closing shop. Studies performed in the past by the Center for Business Research at the Arizona State University College of Business and by the Center for Economic Development and Research at the University of North Texas have confirmed the tremendous economic benefits of a Robson Resort Community for the local economy. The study prepared by ASU in June, 2000 of the economic contributions of SaddleBrooke and SaddleBrooke Ranch estimates that the combined effects of spending for consumer goods and services by households in these two projects upon build-out and the ongoing operations of the homeowners' associations will generate $1.9 billion in expenditures and $1 billion in earnings *per year* in 1999 dollars, and support 27,500 jobs. This is in addition to all of the direct construction and other jobs during the course of development.

The zoning for the entire SaddleBrooke Ranch master plan is vested by virtue of the golf course, streets, infrastructure, amenities and homes already constructed in the community. Zoning vests for the entire master plan because a developer would never start a project as massive as SaddleBrooke Ranch without some assurance of the ability of completing it. For similar reasons, we believe it is incorrect to think of real property within the SaddleBrooke Ranch master plan as "undeveloped" in the same sense as the neighboring State land and agricultural land. Development has not yet reached the location of the BLM-preferred route in SaddleBrooke Ranch, but the location is part of a large and ongoing construction and development project in accordance with a master plan.

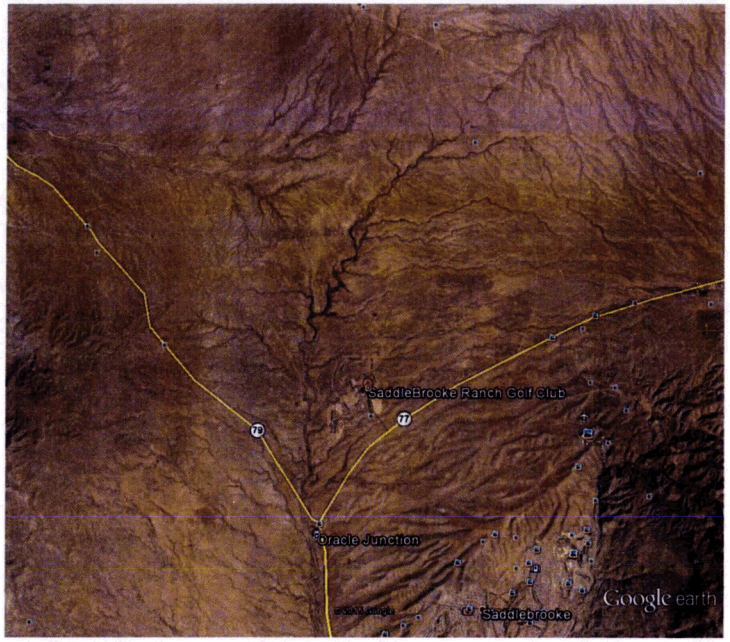
A relatively small adjustment in the routing in the vicinity of SaddleBrooke Ranch, taking the line to the north of SaddleBrooke Ranch before converging with the BLM-preferred route could have a tremendous economic effect, not only for Robson, but also for the County. An example of just one potential change that could have tremendous advantages is indicated in pink in the second attachment to this letter. This change would not have any effect on the route in the

vicinity of the San Pedro River. This adjustment would affect only a very small portion of sub-route 4C2c, meaning that the vast majority of sub-route 4C2c could remain the same. We would appreciate the opportunity to work with the BLM, Pinal County and others to effect this minor modification. Of course, the SunZia-preferred route, as well as many sub-routes in Route Group 4, would avoid SaddleBrooke Ranch entirely.

Sincerely,

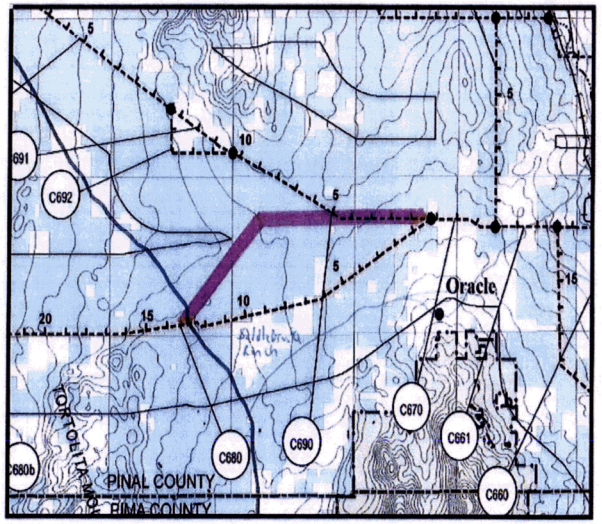
Peter M. Gerstman

cc: Edward J. Robson
Pinal County Board of Supervisors
Arizona Corporation Commission
Arizona Power Plant and Transmission Line Siting Committee



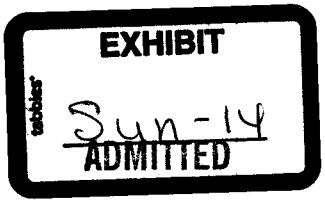
Google earth

miles 6
km 10

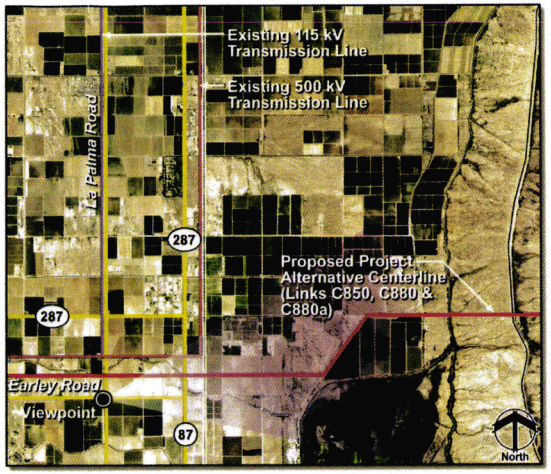


APPLICATION ADDENDUM

Simulation: Exhibit G4-7



Existing Condition – View northeast toward residences on Earley Road. Existing distribution lines, a 500 kV transmission line, and agriculture modify the landscape setting.



Photograph Location: Viewpoint is approximately 0.4 mile from proposed transmission lines.

Simulation – The Project (see structure diagrams) with typical spans. The Project would be minimally screened and partially skylined.

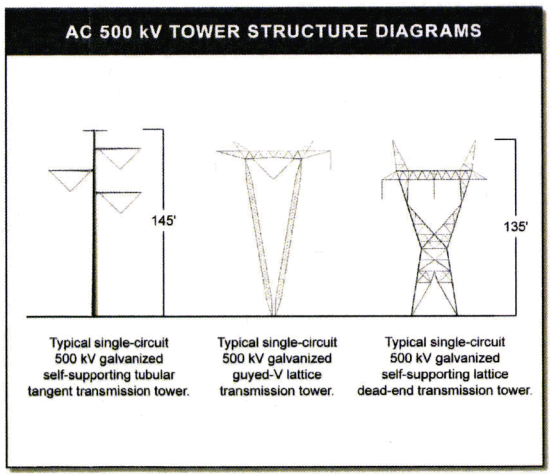


Photo Date and Time: 8-27-15, 1:29 p.m. Focal Length: 50mm
(The original photographs were taken at 50mm, then stitched together to create this panorama, resulting in an approximately 47-degree field of view)

Simulations were prepared using three-dimensional structure models provided by the owner's engineer.
Facility locations, colors, and heights will differ based on final engineering and design.

SunZia Southwest Transmission Line Project

Simulation G4-7

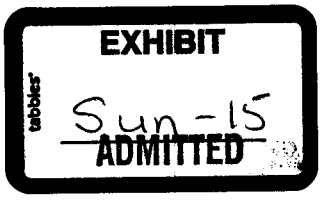
October 2015

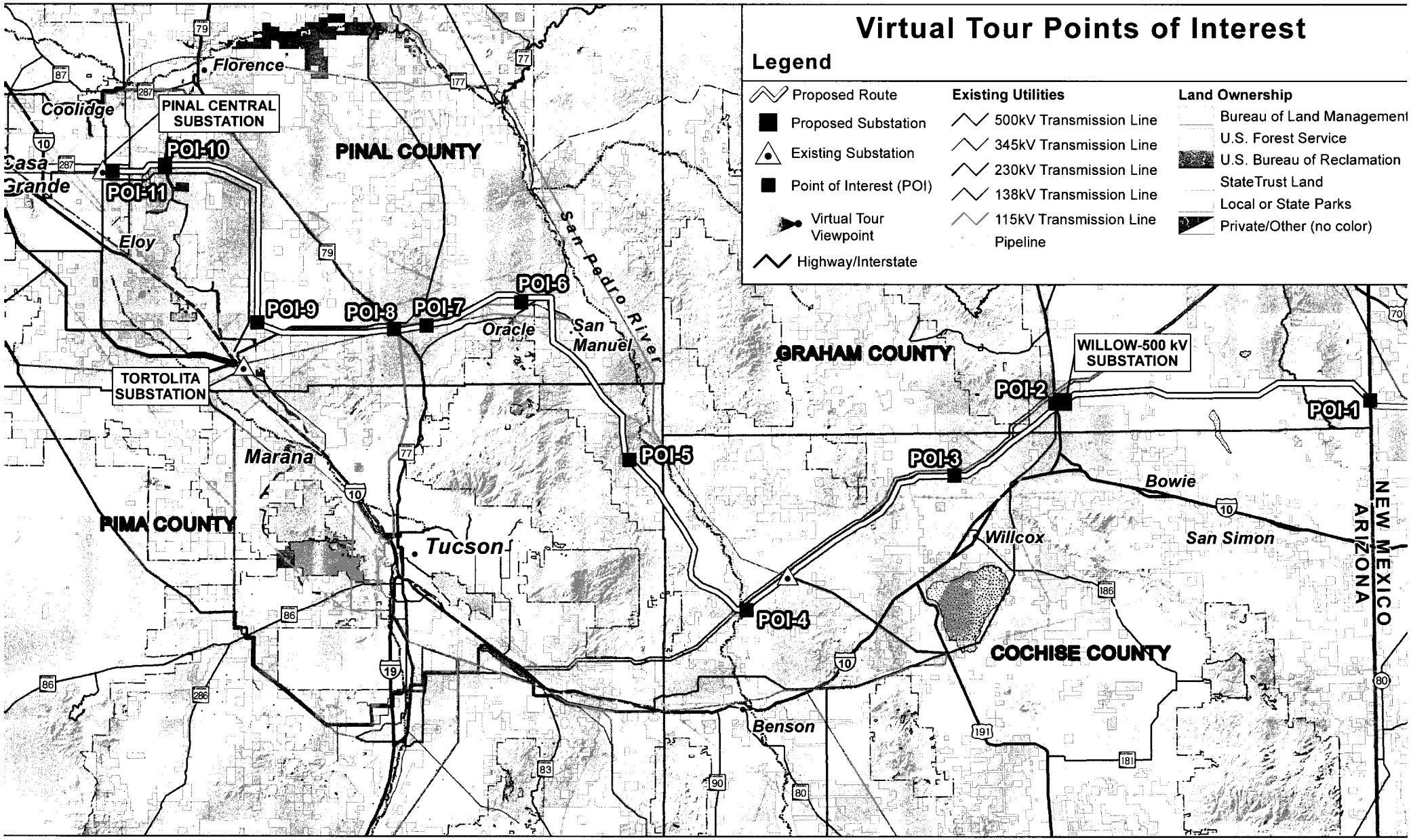
VIRTUAL ROUTE TOUR PROCESS

- Acquire and process data associated with the Project for incorporation into Google Earth
- Develop Points of Interest (POI) and verify the location once incorporated into Google Earth
- Verify the location of Project components, including centerlines, key geographic features crossed, and key roads
- Add reference data to Google Earth (e.g., ownership and existing utilities) and formal reference data (e.g., symbols, line weights, colors, text, etc.)
- Render video clips, including flyover, static photos, drone imagery and videos, and visual simulations
- Composite final video by incorporating rendered videos and static images in a video editing program

VISUAL SIMULATION PROCESS

- Identify Key Observation Points (KOPs) and obtain photography
- Measure elements in the field for scaling reference (e.g., existing towers, terrain, buildings, etc.)
- Create three-dimensional models of project facilities based on the best available data for the Project
- Integrate three-dimensional models with photography from KOPs
- Render models using real-world textures, lighting, and shadow and prepare final visual simulation




Virtual Tour Points of Interest
Legend
Proposed Route
Proposed Substation
Existing Substation
Point of Interest (POI)
Virtual Tour Viewpoint
Highway/Interstate
Existing Utilities
500kV Transmission Line
345kV Transmission Line
230kV Transmission Line
138kV Transmission Line
115kV Transmission Line
Pipeline
Land Ownership
Bureau of Land Management
U.S. Forest Service
U.S. Bureau of Reclamation
StateTrust Land
Local or State Parks
Private/Other (no color)
PINAL CENTRAL SUBSTATION
PINAL COUNTY
POI-10
POI-11
POI-9
POI-8
POI-7
POI-6
POI-5
POI-4
POI-3
POI-2
POI-1
TORTOLITA SUBSTATION
WILLOW-500 kV SUBSTATION
GRAHAM COUNTY
COCHISE COUNTY
PIMA COUNTY
Florence
Coolidge
Casa Grande
Eloy
Oracle
San Manuel
San Pedro River
Marana
Tucson
Willcox
Bowie
San Simon
Benson
NEW MEXICO
ARIZONA


Application for a
Certificate of Environmental Compatibility
SunZia Southwest
TRANSMISSION PROJECT
New Mexico State Line to Pinal Central Substation
Virtual Tour
SunZia
October 2015

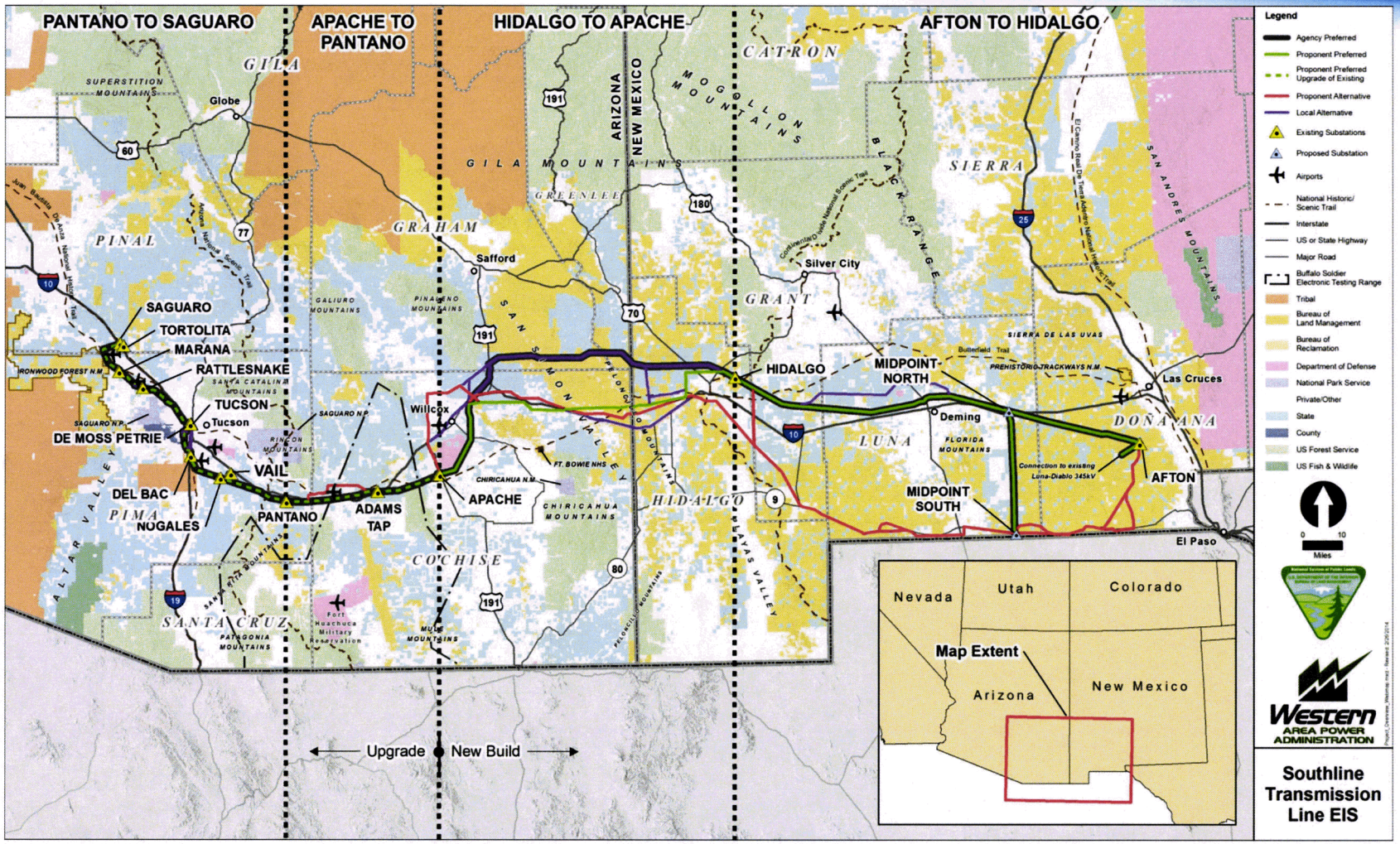
Scope of Southline Project

- **Composition:**
  - 240 miles: new build double-circuit 345 kV transmission lines on a single tower from Afton Power Plan (NM) to Apache Power Plant (AZ)
  - 120 miles: rebuild of Western's 115 kV transmission line to double-circuit 230 kV
  - Upgrades to 12 Western substations from 115 kV to 230 kV, requiring expansion of the substation footprint
  - No generation identified in project scope

Key Comparisons

Category	Southline	SunZia
Operating Voltage(s)	345 kV and 230 kV	500 kV
WECC Path Rating	Afton to Apache: 1037 MW Apache to Saguaro: 1000 MW	SunZia East-Pinal Central: 3,000 MW
Access to solar resources	Yes	Yes
Access to wind resources	No	Yes
Interconnection to 500 kV system	No	Yes
Issuance of FEIS	No	Yes
Issuance of ROD	No	Yes
Filing of CEC Application	No	Yes
Filing of 10 Year Plans (ACC)	2015	2009-2015

Southline Project

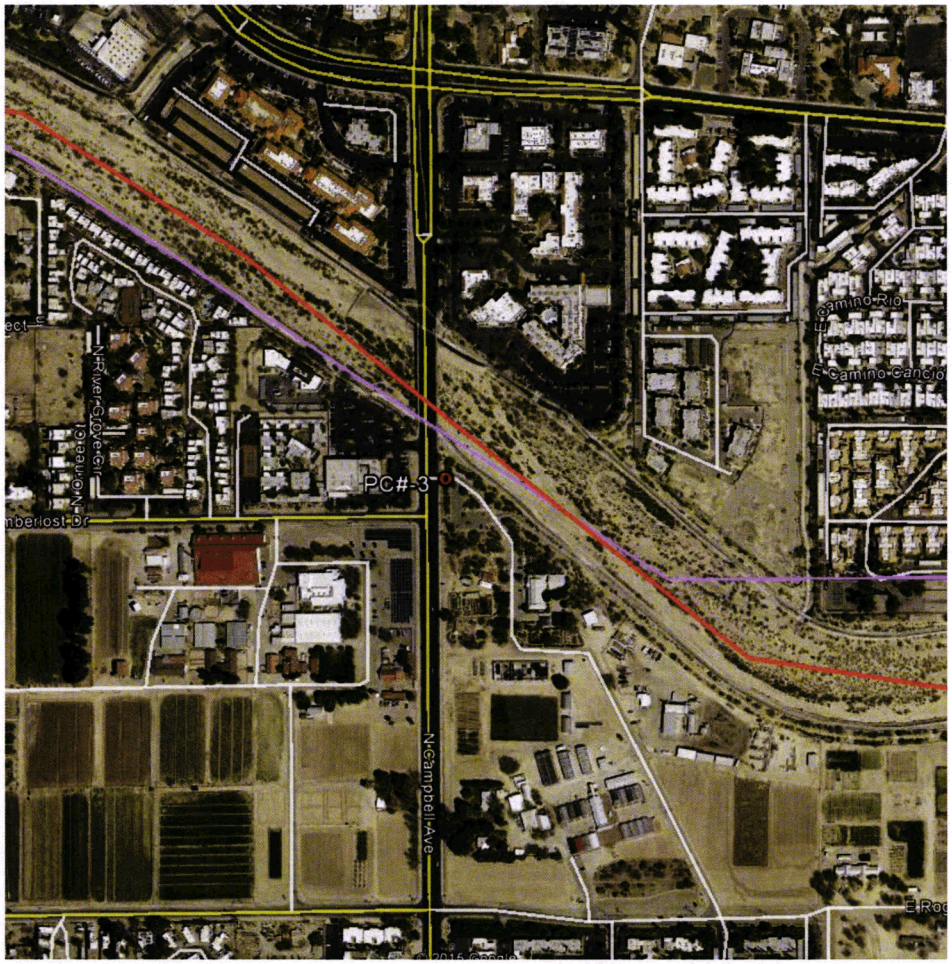


PC#-1: Hampton Inn
Tucson Alternative Route 4C3 (orange line) is approximately 0.25 miles west of I-10, parallel to Western 138 kV line along the Santa Cruz River

Econo Lodge/Budget Inn
East side of Interstate 10 at Exit 261/6th Ave.
Tucson Alternative shown in light orange

PC#-2: Town and Country and SunHaven Residential Subdivisions
Tucson Alternative (4C3 (orange line) is 250 ft. south west and parallel to Benson Hwy

Mortimore Residential Subdivision
Tucson Alternative 4C3 (orange line) is 250 ft. west of Alvernon Way



PC#-3: Rillito River Park
South side of Rillito River on N. Campbell Ave.
Tucson (Local) Alternative shown in orange, along river
parallel to existing 138 kV line shown in pink

SunZia

SunZia Southwest
Transmission Project

Rebuttal Materials of *Tom Wray*

SunZia Project Manager

EXHIBIT
SUN-19

TEP Response to ACC Staff Data Request

"TEP saw an opportunity for the potential to meet some of its renewable needs through the project, and the potential to realize reliability benefits by having an additional EHV transmission line connected to its system."

SRP Response to ACC Staff Data Request

"Second, there is a long-term interest to develop additional transmission from existing generation sources located in eastern Arizona to serve load in central Arizona. The SunZia Project presents an opportunity to develop a portion of that transmission and improves reliability of the regional transmission system."

"SRP's interest, to the extent we choose to participate in the development of the Project, would be to move the energy acquired through the line to serve our load in the Valley. Once the energy reaches Pinal Central, we have the capability of moving our capacity to serve our load."

RESIDENTIAL UTILITY CONSUMER OFFICE

www.azruco.gov

1110 WEST WASHINGTON · SUITE 220 · PHOENIX, ARIZONA 85007 · PHONE: (602) 364-4835 · FAX: (602) 364-4846

Douglas A. Ducey
Governor

David P. Tenney
Director

November 10, 2015

Mr. Thomas Chenal, Chairman
Arizona Corporation Commission
Power Plant and Transmission Line Siting Committee
1275 West Washington Street
Phoenix, AZ 85007-2926

Re: SunZia Southwest Transmission Project
ACC Docket No. L-00000YY-15-0318-00171

Dear Chairman Chenal:

In regards to Case No. 171, concerning an Application for a Certificate of Environmental Compatibility ("CEC") for the SunZia Southwest Transmission Project ("SunZia", or the "Project"), the Residential Utility Consumer Office ("RUCO") supports the issuance of a CEC by the Line Siting Committee and the Arizona Corporation Commission.

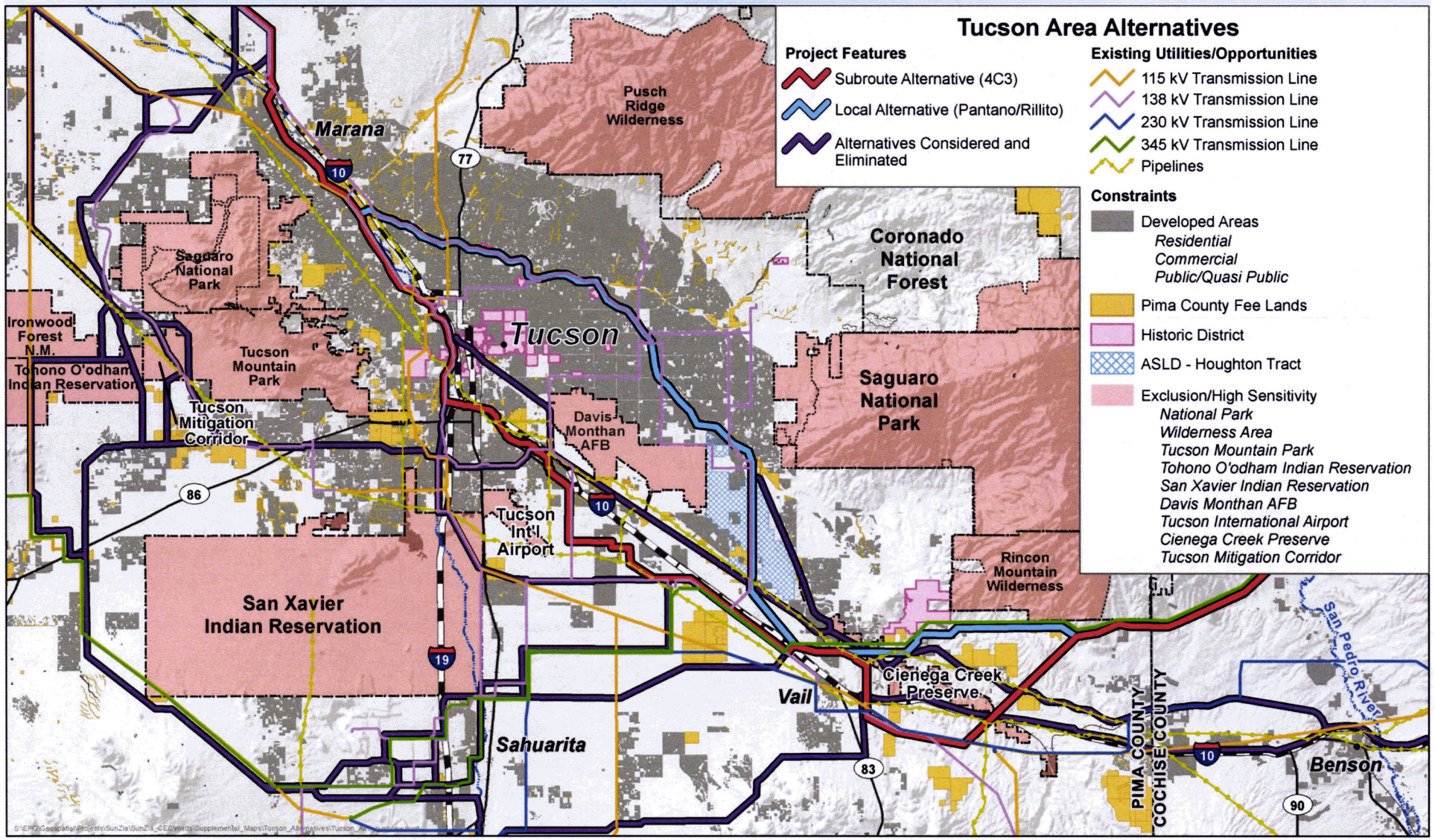
RUCO represents the state's residential utility ratepayers in regulatory proceedings at the Arizona Corporation Commission and is an advocate for their interests. We are aware of and support the SunZia Southwest Transmission Project, which will provide Arizona's electric utilities with additional transmission capacity to procure adequate, reliable and economic sources of electrical power for the state's residential customers. In addition, because the SunZia Project is a merchant transmission project, Arizona ratepayers stand to benefit without bearing the risks associated with development and construction of the project.

I appreciate the opportunity to support the issuance of a CEC for the SunZia Project. RUCO looks forward to the successful completion of SunZia as an integral component to the state's EHV transmission system.

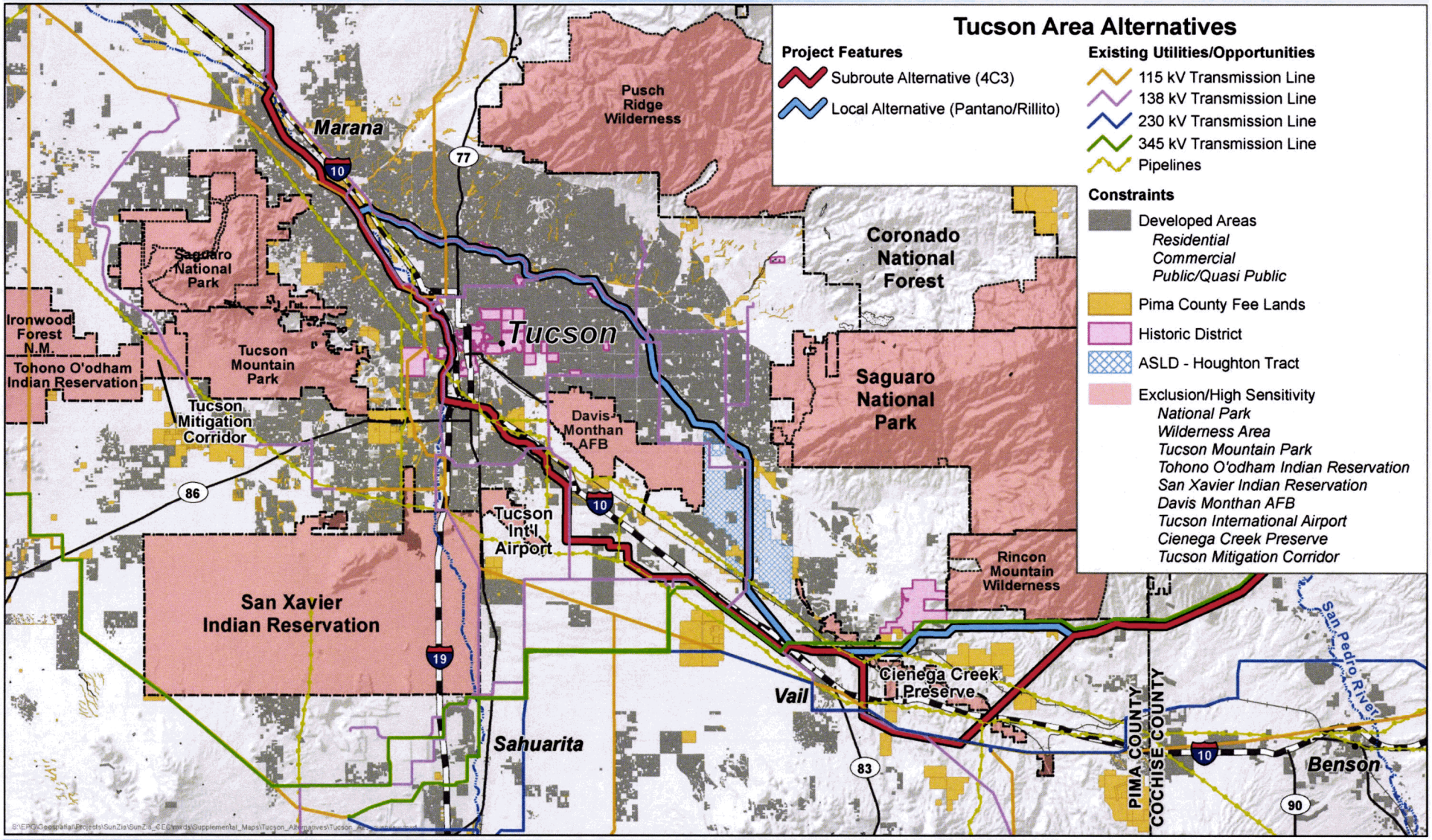
Sincerely,

David P. Tenney
Director

Tucson Area Alternatives



Tucson Alternatives Considered in EIS



Ownership Details
Proposed Route Versus Tucson Alternatives

Route	Approximate Total Length	BLM	BOR	State	Private/Other
Proposed Route	200	50 (25%)	.5 (.2%)	132 (66%)	17.5 (9%)
Tucson Alternative (Subroute 4C3)	210	48 (23%)	1 (.5%)	113 (53.5%)	48 (23%)
Tucson Local Alternative (Pantano/Rillito)	206	48 (23.4%)	1 (.6%)	98.5 (48%)	58 (28%)

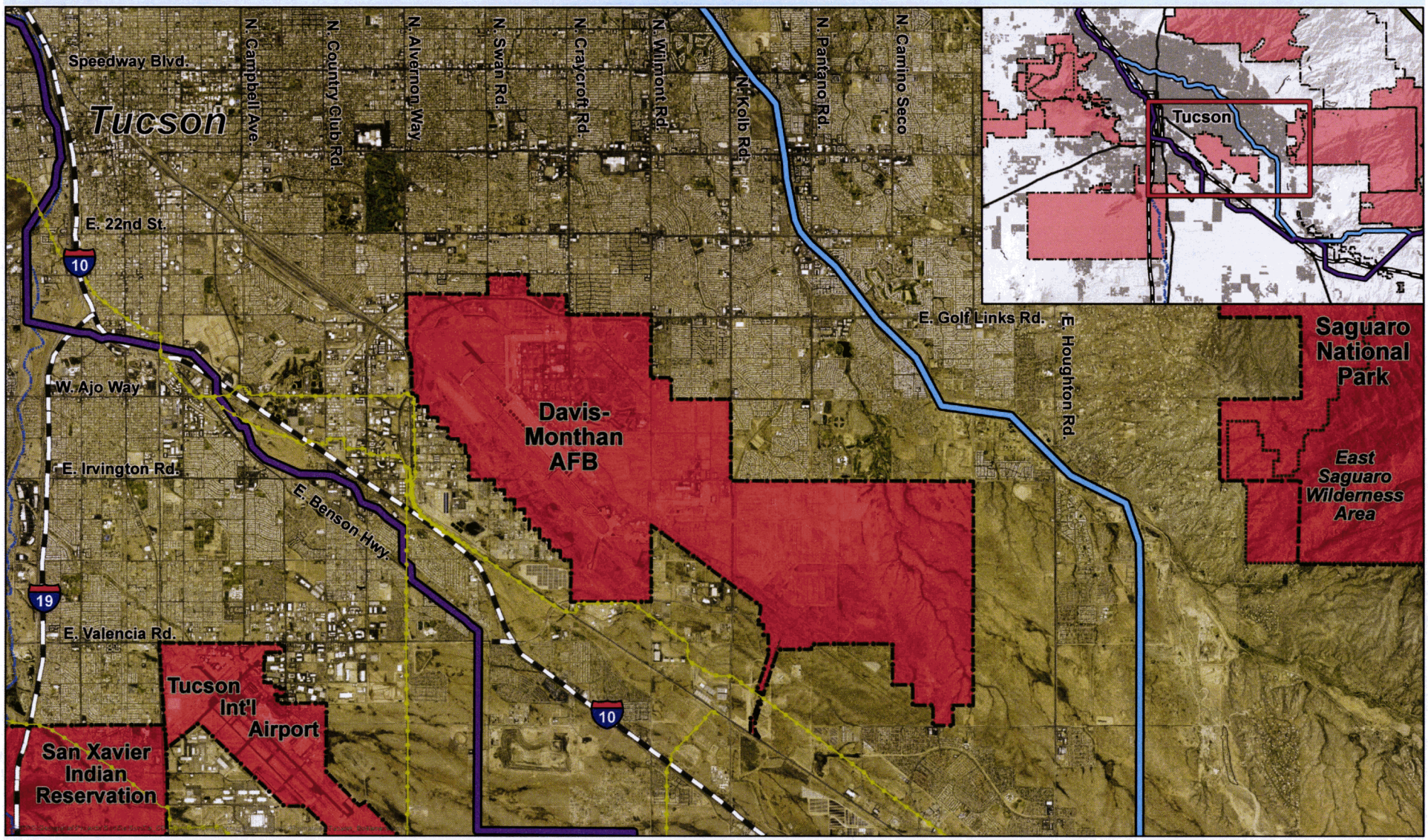
NOTE: All lengths are in miles and rounded to the nearest 0.5 mile.

Comparison of Land Ownership (miles) in Pima County

Ownership	SunZia Proposed Route	Tucson Alternative (Subroute 4C3)	Tucson Local Alternative (Pantano/Rillito)
Private/Other	0	29.6	39.7
State Trust	16.2	40.9	26.7
BLM	0	0	0
Total	16.2	70.5	66.4

	Tucson Alternatives	Proposed Route
Impact level to Residences	Up to 250 private residences would need to be razed.	No direct impacts to residences.
Impact Level to Commercial or Industrial Properties	Between 30-50 business/commercial properties would need to be razed.	No direct impacts to commercial, or industrial properties.
Impact Level to Environmental Justice Populations	High, disproportionate impacts to environmental justice populations. Impacts 13 tracts identified in the census as "environmental justice" populations.	Low to moderate impacts 4 tracts identified in the census as "environmental justice" populations.
Impact Level to Cultural Resources	• Higher overall impacts to cultural resources • Potential impacts to eight known habitation sites	• Potential impacts to two known habitation sites • Potential cultural-visual impacts to the McClellan Wash Archaeological District
Overall Costs	$1,155M	$835M

Tucson Alternatives Map



Tucson Alternatives
Summary of Environmental Justice Impacts

- Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

- EIS concluded that Tucson alternatives result in high, disproportionate impacts to Environmental Justice Populations.

- As many as 250 private residences and 30-50 commercial or industrial properties in Tucson could be displaced (condemned) as part of the right-of-way acquisition.

Tucson Alternatives
Summary of Environmental Justice Impacts

- *Displacement would not be the only potential economic impact on these residences and surrounding neighborhoods, as construction in these areas could jeopardize the social cohesion of neighborhoods by creating both physical and perceptual boundaries of separation between homes and commonly visited places, including commercial businesses and public gathering places. These potential high and moderate impacts may result in strong opposition from tight knit communities throughout Tucson if there are widespread perceptions of injustice. The total population of the tracts that may experience high impacts is approximately 76,500; approximately 62 percent of these residents are Hispanic and nearly 30 percent are below Arizona's poverty level.* (FEIS, Section 4.14)

Tucson Alternatives
Summary of Impacts to Cultural Resources

- **Tucson alternatives have higher potential impacts to cultural resources:**
  - » High density of resources, less than 0.5 miles from known historic districts
  - » Potential impacts to eight known habitation sites (Proposed Route only impacts to known habitation sites).
  - » Crosses Gila, General Cooke's Wagon Road/Mormon Battalion, Butterfield, and Zuniga trails
  - » Potential cultural-visual impacts to the McClellan Wash Archaeological District
  - » Potential cultural-visual impacts to the Colossal Cave Mountain Park Natural Landmark, Juan Bautista de Anza

Opposition to the Tucson Alternatives

- **City of Tucson:**
  - » Transmission lines could have detrimental impact on Tucson downtown area economic development process.
  - » Transmission lines conflict with recreation use and conservation at the (Santa Cruz) river corridor.

Cost Comparison (two 500 kV lines)

	Proposed Route	Tucson Alternatives	Difference
Line	$720M	$865M	$145M
Stations	$90M	$90M	$0M
ROW	$25M	$200M	$175M
TOTAL	**$835M**	**$1,155M**	**$320M**

	Tucson Alternatives	Proposed Route
Impact level to Residences	Up to 250 private residences would need to be razed.	No direct impacts to residences.
Impact Level to Commercial or Industrial Properties	Between 30-50 business/commercial properties would need to be razed.	No direct impacts to commercial, or industrial properties.
Impact Level to Environmental Justice Populations	High, disproportionate impacts to environmental justice populations. Impacts 13 tracts identified in the census as "environmental justice" populations.	Low to moderate impacts 4 tracts identified in the census as "environmental justice" populations.
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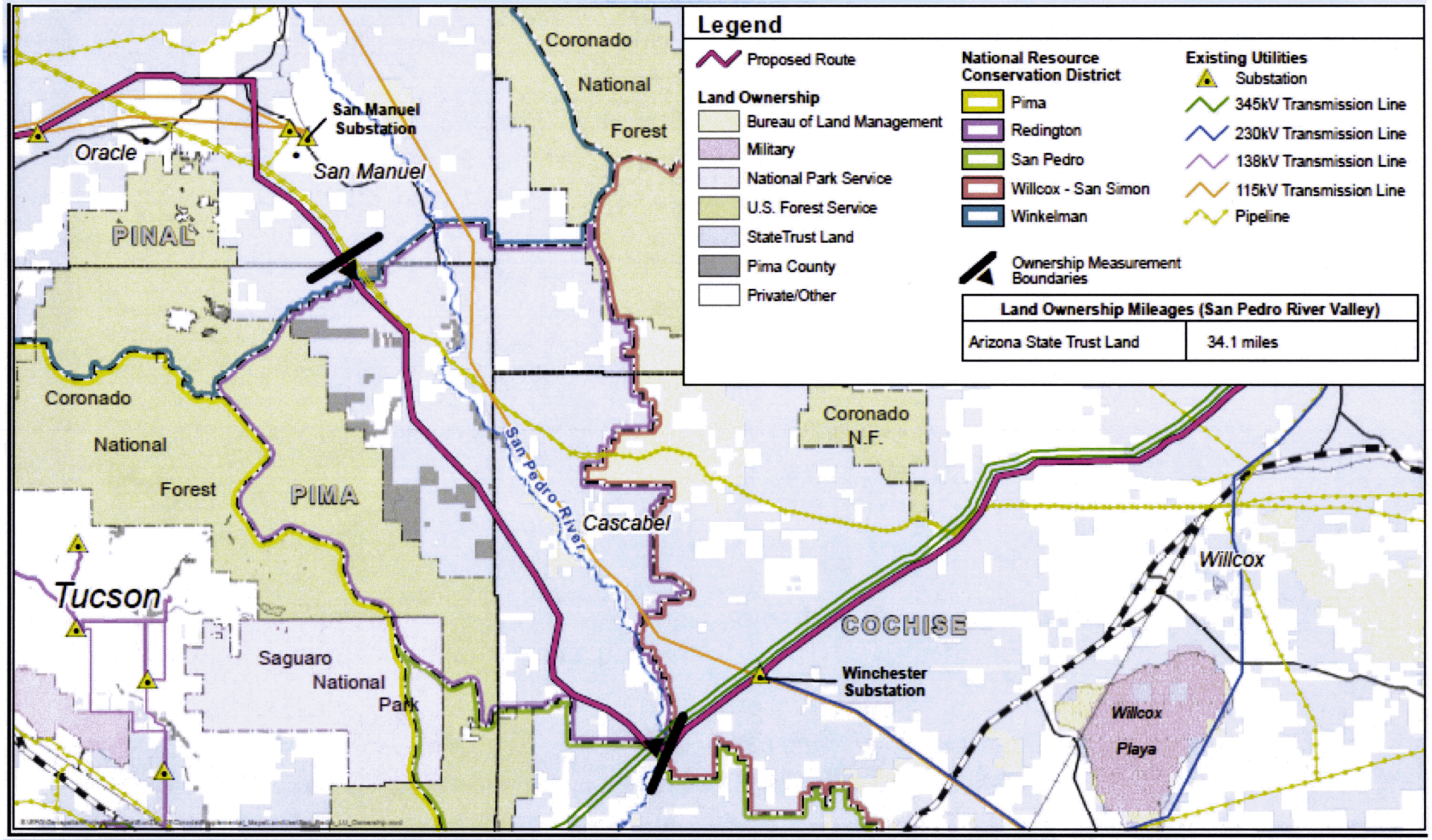
Overall Costs	$1,155M	$835M

Summary of Support

Tucson Alternatives	SunZia Proposed Route
Pro Se Interveners	Arizona State Land Department
Certain Environmental Organizations, which have not intervened in this CEC Process	Bureau of Land Management
Other public commenters, who have not intervened in this CEC Process	Arizona Department of Transportation
	Arizona Game & Fish Department
	Pinal County
	Cochise County
	Graham County
	Greenlee County
	Willcox Chamber of Commerce (Owners and Operators of "Wings over Willcox")
	City of Willcox
	Arizona Residential Utility Consumer Office
	Arizona Competitive Power Alliance

Land Ownership in the San Pedro River Valley



BLM, ASLD, AZGF, and ADOT Letter

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

SEP 18 2015

In Reply Refer To:
2800 (9310)
NM 14448
AZA35058

Mr. Thomas Chenal, Chairman
Arizona Corporation Commission
Power Plant and Line Siting Committee
1275 West Washington Street
Phoenix, AZ 85007-2926

Re: SunZia Transmission Line Project

Dear Chairman Chenal:

Please accept this correspondence as a summary regarding the extensive cooperation between the Bureau of Land Management (BLM), the respective Arizona State agencies and other Federal cooperators on the SunZia Transmission Project. At a July 22, 2015, meeting with SunZia Transmission, LLC (SunZia) a request was made to the BLM, Arizona State Land Department, Arizona Department of Transportation, and Arizona Game and Fish Department to author a joint letter summarizing the process for the selected route for the project in the BLM's Record of Decision (ROD) dated January 23, 2015, as well as to outline the cooperation that occurred between all the parties involved in the project.

On September 11, 2008, SunZia submitted an application for a right-of-way for an electric transmission line project consisting of two parallel 500 kilovolt overhead transmission lines, approximately 515 miles in length. The proposed line originates in Lincoln County, New Mexico and terminates at the Pinal Central Substation, in Pinal County, Arizona, northwest of Tucson.

As the lead Federal agency, the BLM was responsible for completing an Environmental Impact Statement (EIS) under the authority of the National Environmental Policy Act (NEPA) that analyzed and disclosed the effects of the proposed project on both the natural and human environment. The analysis incorporated valuable input from the public as well as Federal, State, and local agencies having related jurisdiction or special expertise.

Some of the agencies elected to become "Cooperating Agencies", which afforded them the opportunity to participate in the BLM's interdisciplinary team process. The Cooperating Agencies were able to inform the BLM of resource and socio-economic impacts, policies, regulations, and laws of which they may have specific local knowledge. In the SunZia planning process, this cooperation and the significant public input through the public comment period resulted in the identification of four main alternatives and various sub-alternatives in Arizona. Federal agencies participating in this EIS process included the U.S. Fish & Wildlife Service; National Park Service; Fort Huachuca Army Base, AZ; White Sands Missile Range, NM; Holloman Air Force Base, NM; and Fort Bliss Army Base, TX. Arizona State agencies participating as Cooperating Agencies included the State Land Department, Game and Fish Department, and Department of Transportation.

The EIS thoroughly analyzed and disclosed the effects to the natural and human environment on Federal and non-Federal lands. The involvement of local and Federal agencies with jurisdiction and/or special expertise in the analysis was critical in analyzing those impacts to non-Federal lands, as the selected route in Arizona was comprised of a total of 198 miles (crossing 130 miles of State Land, 18 miles of private land, and 50 miles of BLM managed land).

Through this collaborative effort, the route that was ultimately selected resulted in mitigation development that reduced the resource impacts, and

- Optimized the use of existing utility corridors and infrastructure
- Minimized impacts to sensitive resources
- Minimized, to the extent practical, impacts at river crossings

The routes evaluated but not chosen would result in greater impacts to natural, cultural, and sensitive resources. For example, the other routes crossed the San Pedro River at points with critical habitat designated by the Fish and Wildlife Service. Also, those crossings and routes have lower levels of existing disturbance. The construction of a line of this scope and size would introduce new disturbance by aiding access to previously un-fragmented land. Additionally, the northern routes traverse through rugged terrain that contributes to the habitat and ecological function of the Aravaipa wilderness. Other concerns with the northern routes near Mount Graham included Native American Tribal areas of religious and cultural significance. These are a few resources that factored into making the decision of the selected route. While further details are in the Final EIS and the ROD, the BLM in Arizona, along with the State Agencies engaged as Cooperators, stand prepared to answer any questions regarding the NEPA process and the cooperative engagement that resulted in a Record of Decision.

If you have questions, please call me at 602-417-9500.

Sincerely,

Raymond Suazo
State Director

Lisa Atkins
Commissioner
Arizona State Land Department

[illegible]
Director
Arizona Game and Fish Department

John S. Halikowski
Director
Arizona Department of Transportation

cc: Mr. Aden Seidlitz, Acting State Director
Bureau of Land Management
New Mexico State Office
Attention: Adrian Garcia
301 Dinosaur Trail
Santa Fe, NM 87508

SunZia®

SunZia Southwest
Transmission Project

Rebuttal Testimony Materials of *Mark Etherton*

Rebuttal Summary

Construction of Guyed-V Tangent Structure

Construction of Monopole Tangent Structure

Cost Comparison of Guyed-V vs. Monopole

Western San Pedro Access Discussion

500 kV AC Transmission Tower Designs

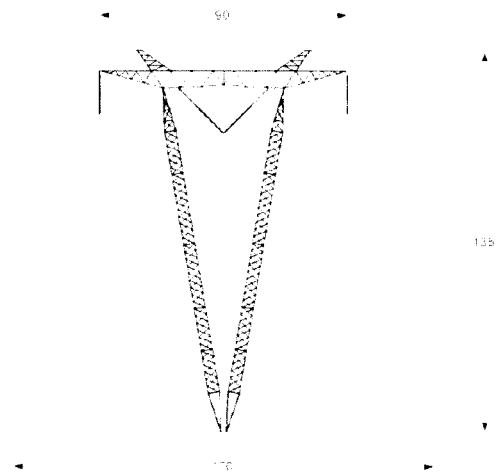
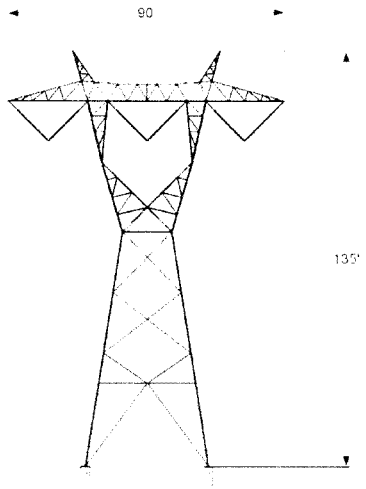
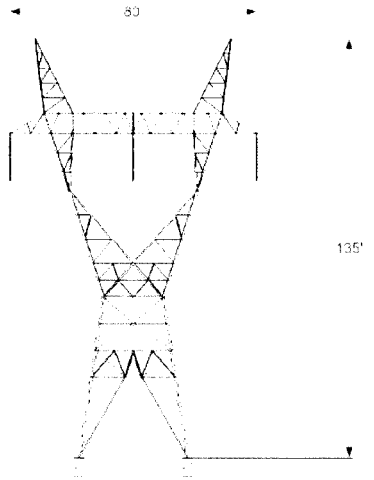


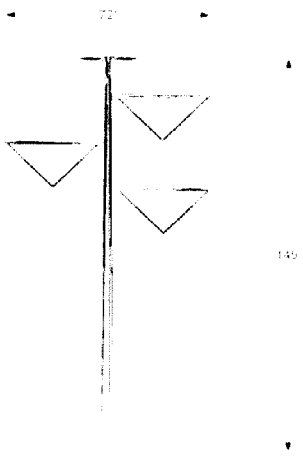
Figure 2-11. Typical AC Guyed "V" Lattice Tangent Structure



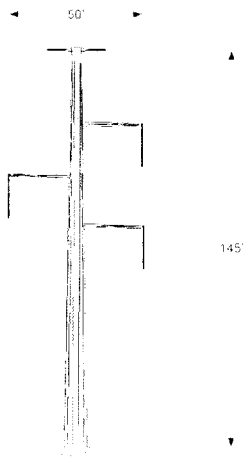
Typical AC Self-Supporting Lattice Tangent Structure



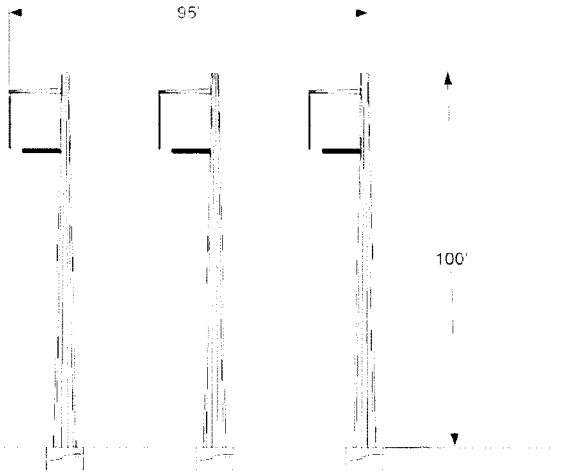
Typical AC Self-Supporting Dead-End Lattice Structure



Typical AC Self-Supporting Tubular Tangent Structure



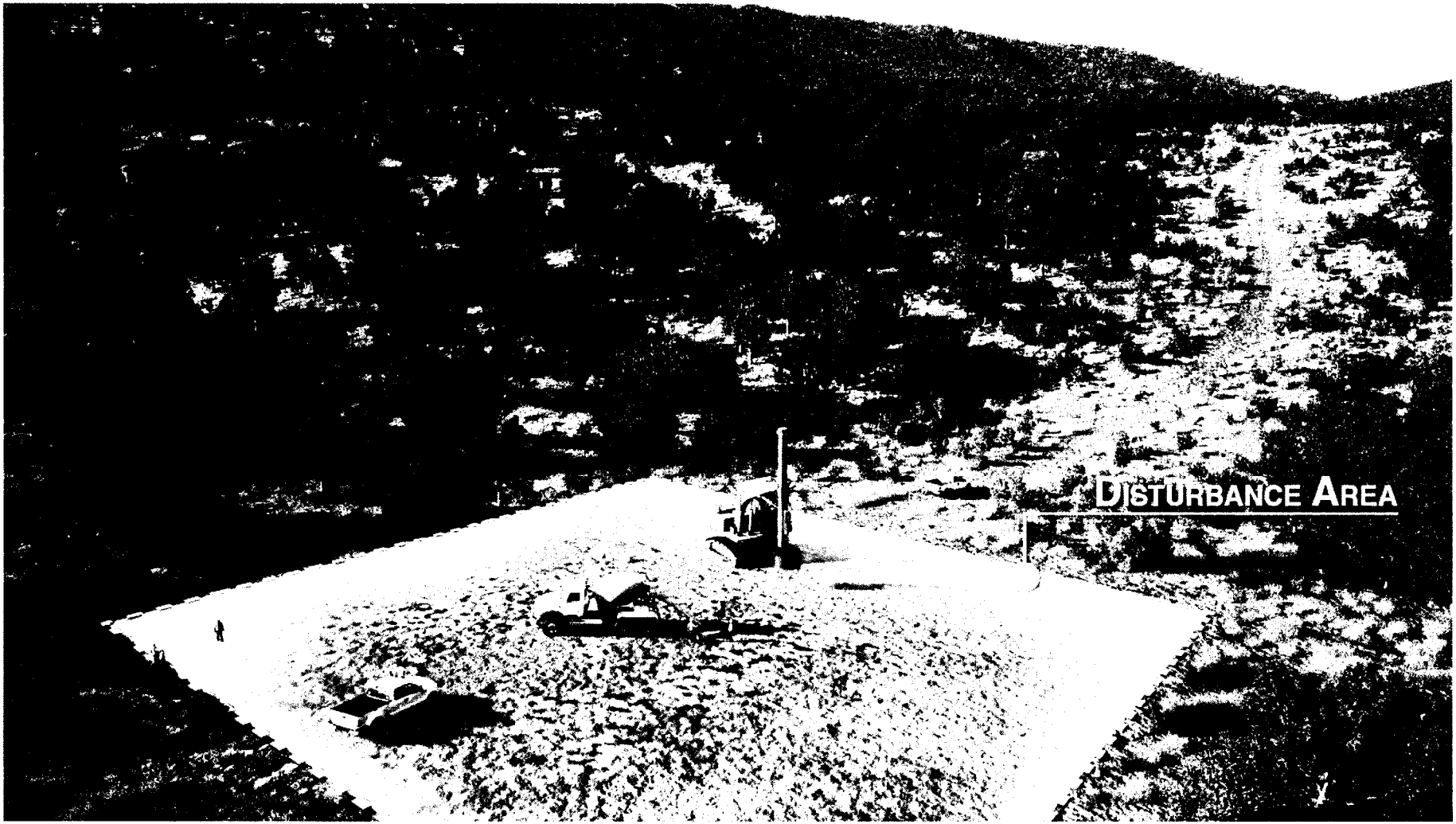
Typical AC Self-Supporting Dead-End Tubular Structure



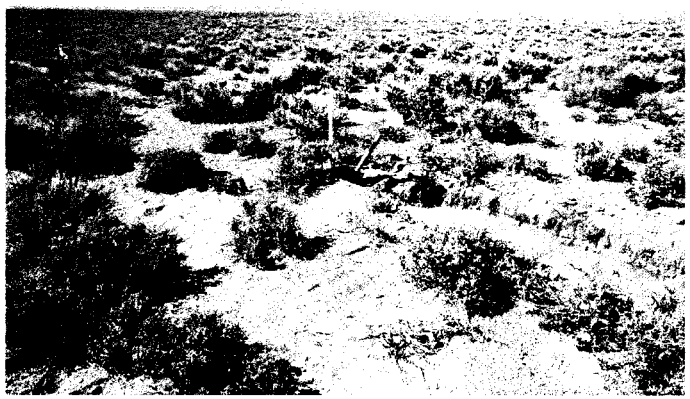
Typical AC Self-Supporting Dead-End Tubular, 3-Pole Structure

500 kV AC Guyed-V Construction

500 kV AC Guyed-V Construction

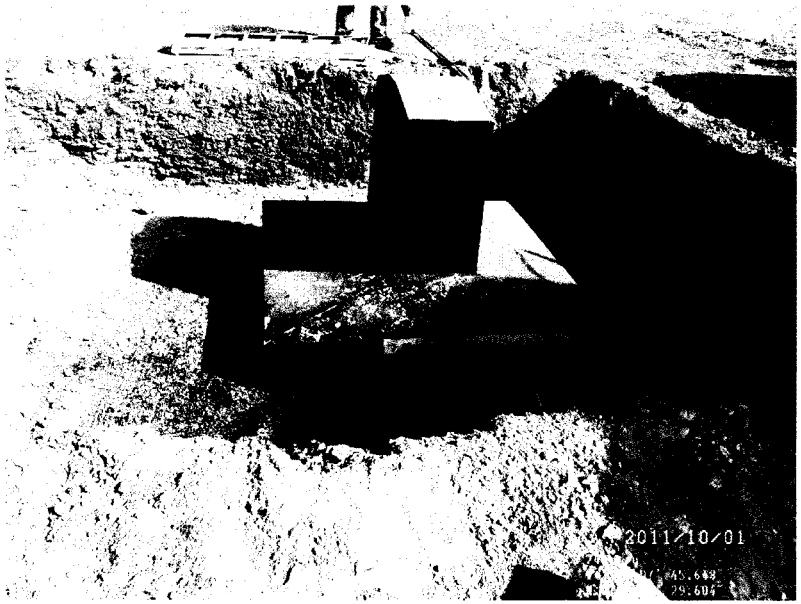


Guyed-V - Anchors and Pedestal

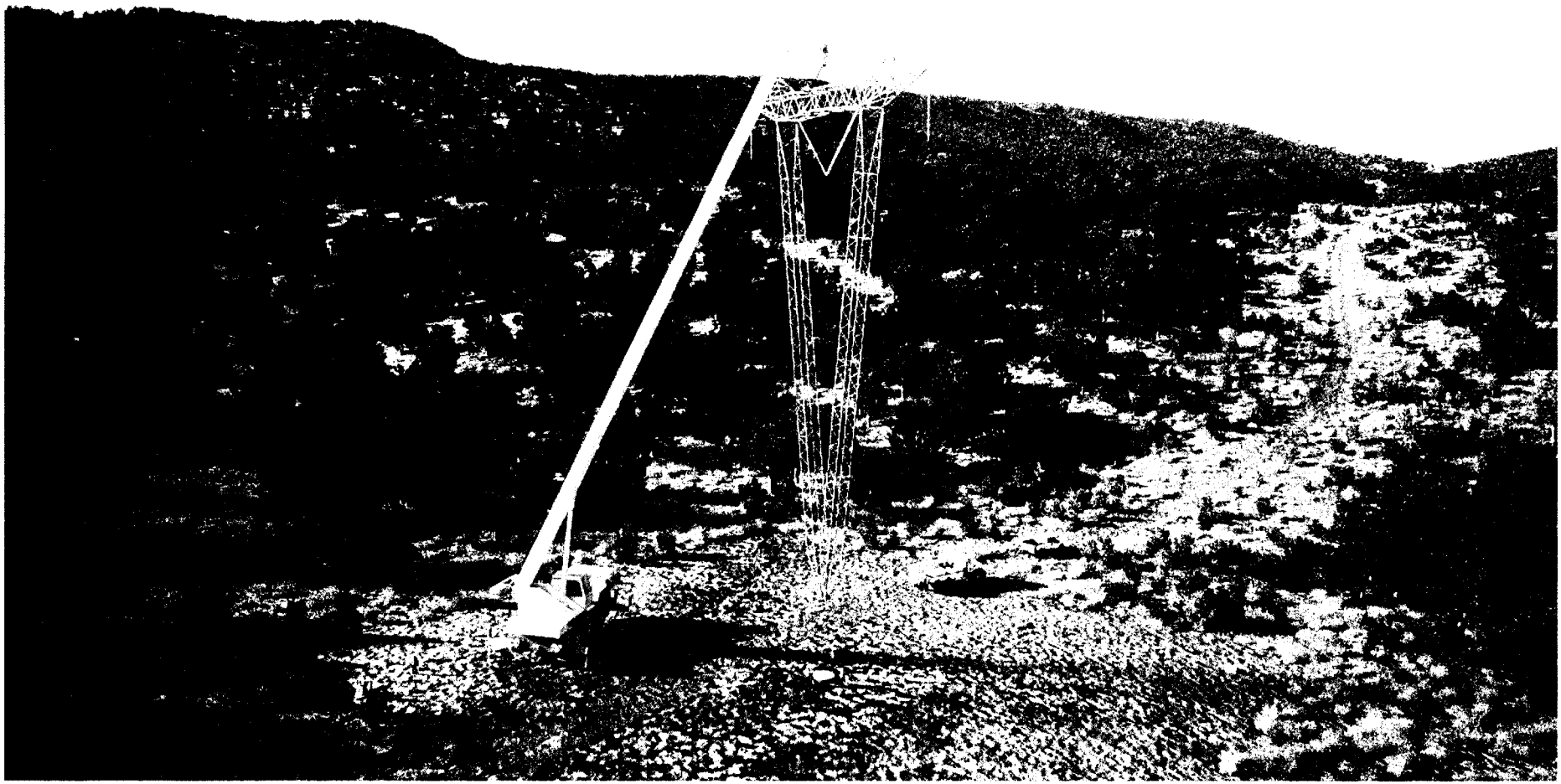


Anchors: Drilled and grouted

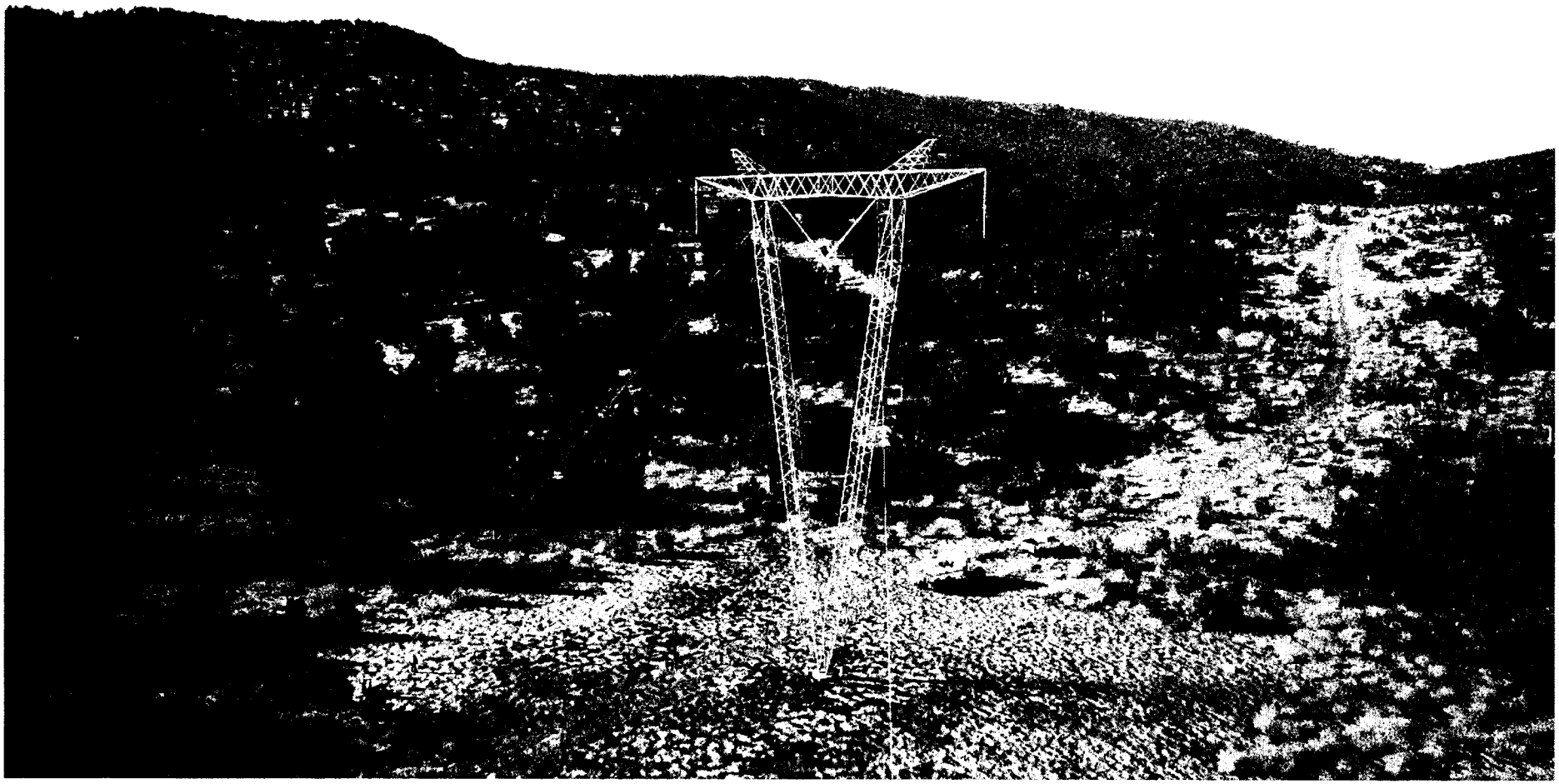
Pedestal: Pre-cast or drilled in place with approximately 2 to 3 yards of concrete



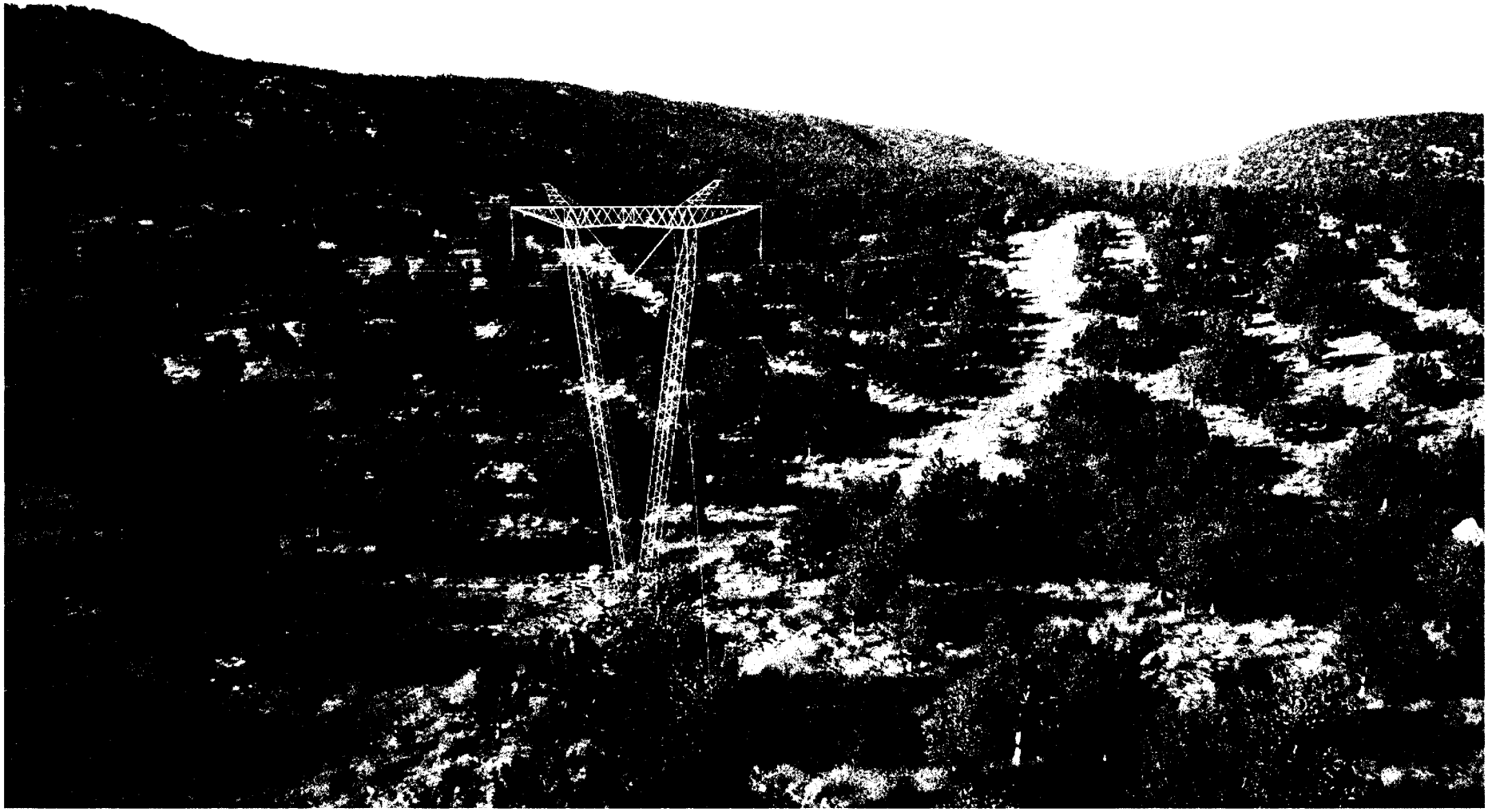
500 kV AC Guyed-V Construction



500 kV AC Guyed-V Construction

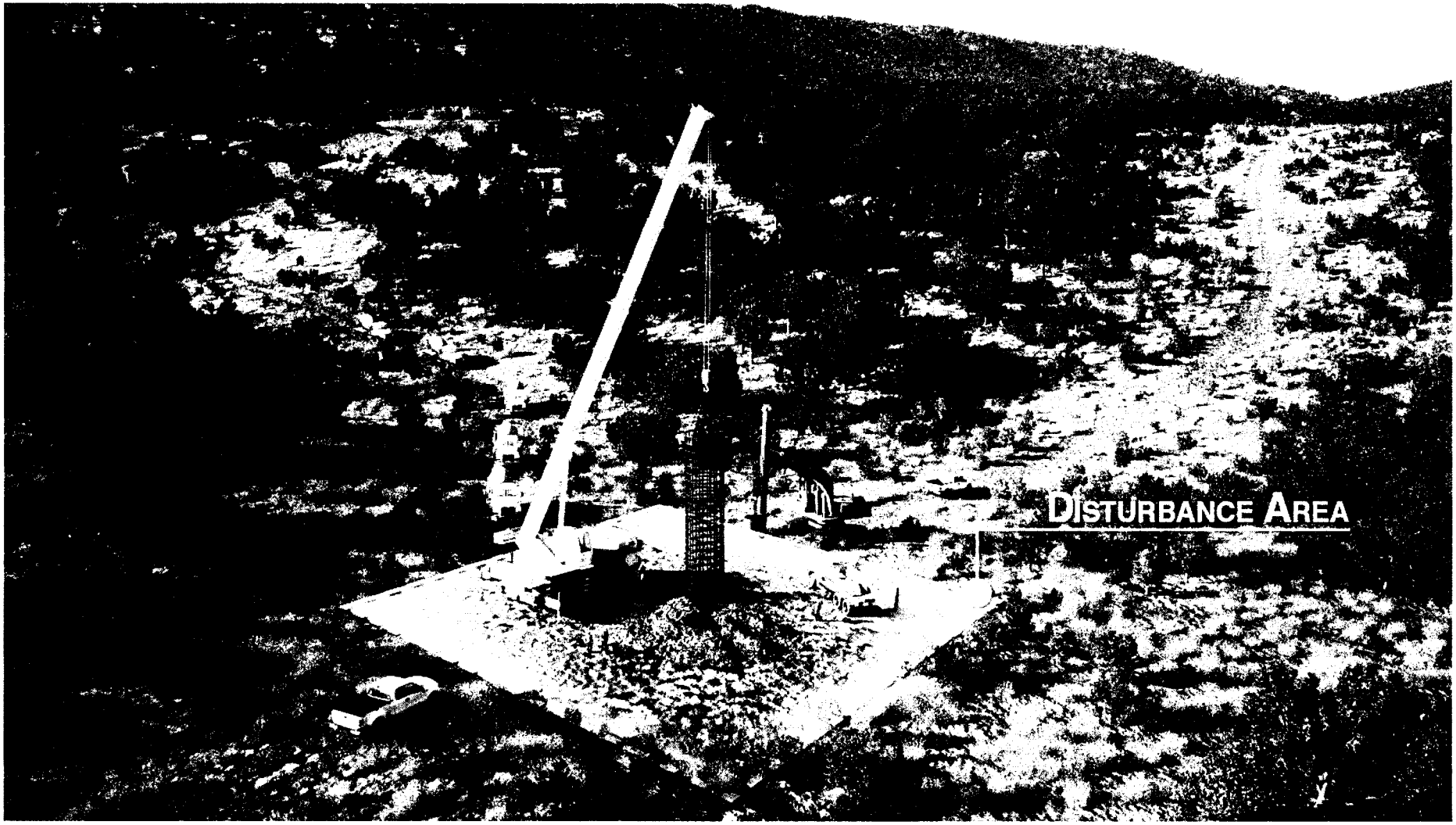


500 kV AC Guyed-V Construction

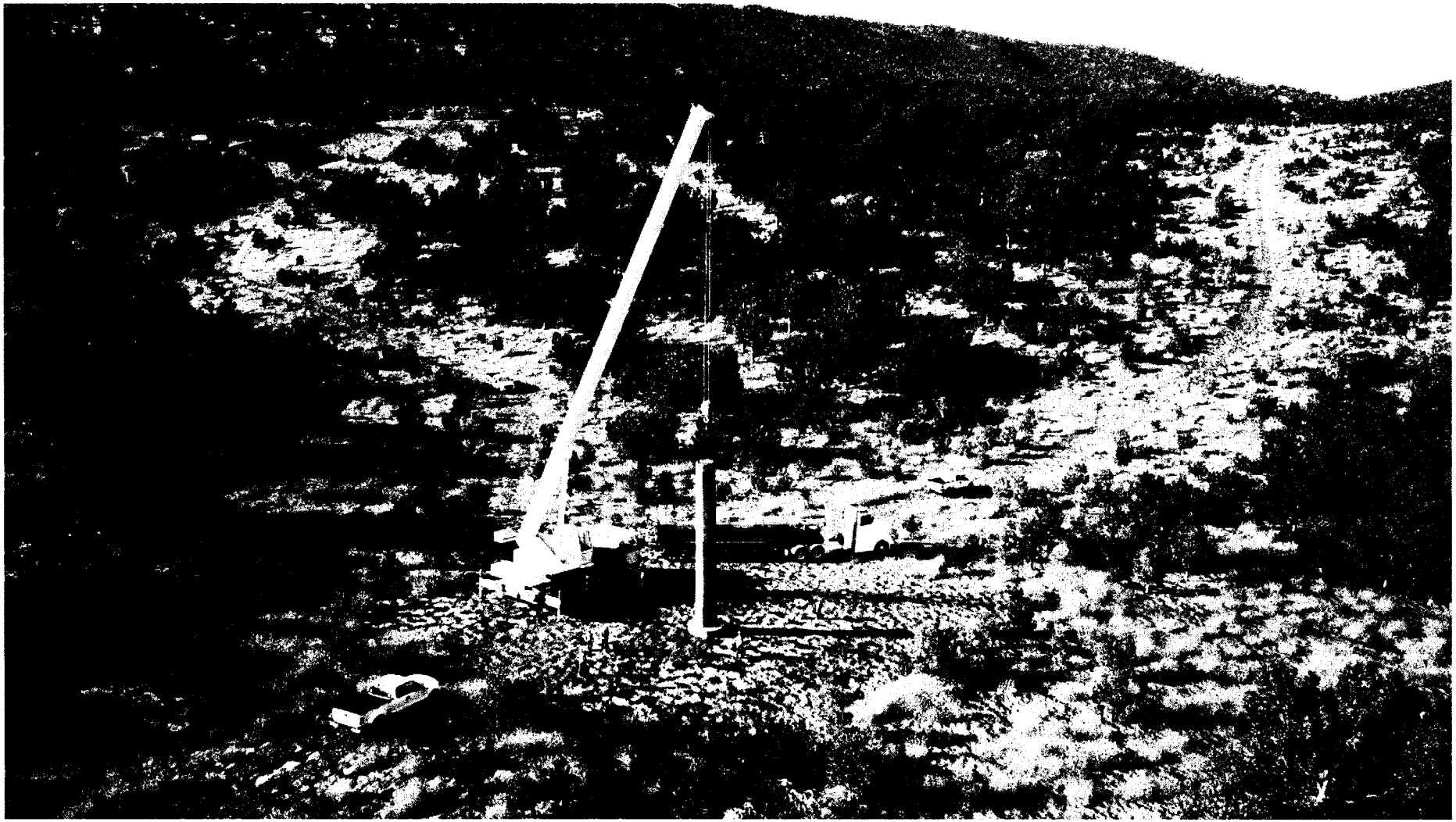


500 kV AC Monopole Construction

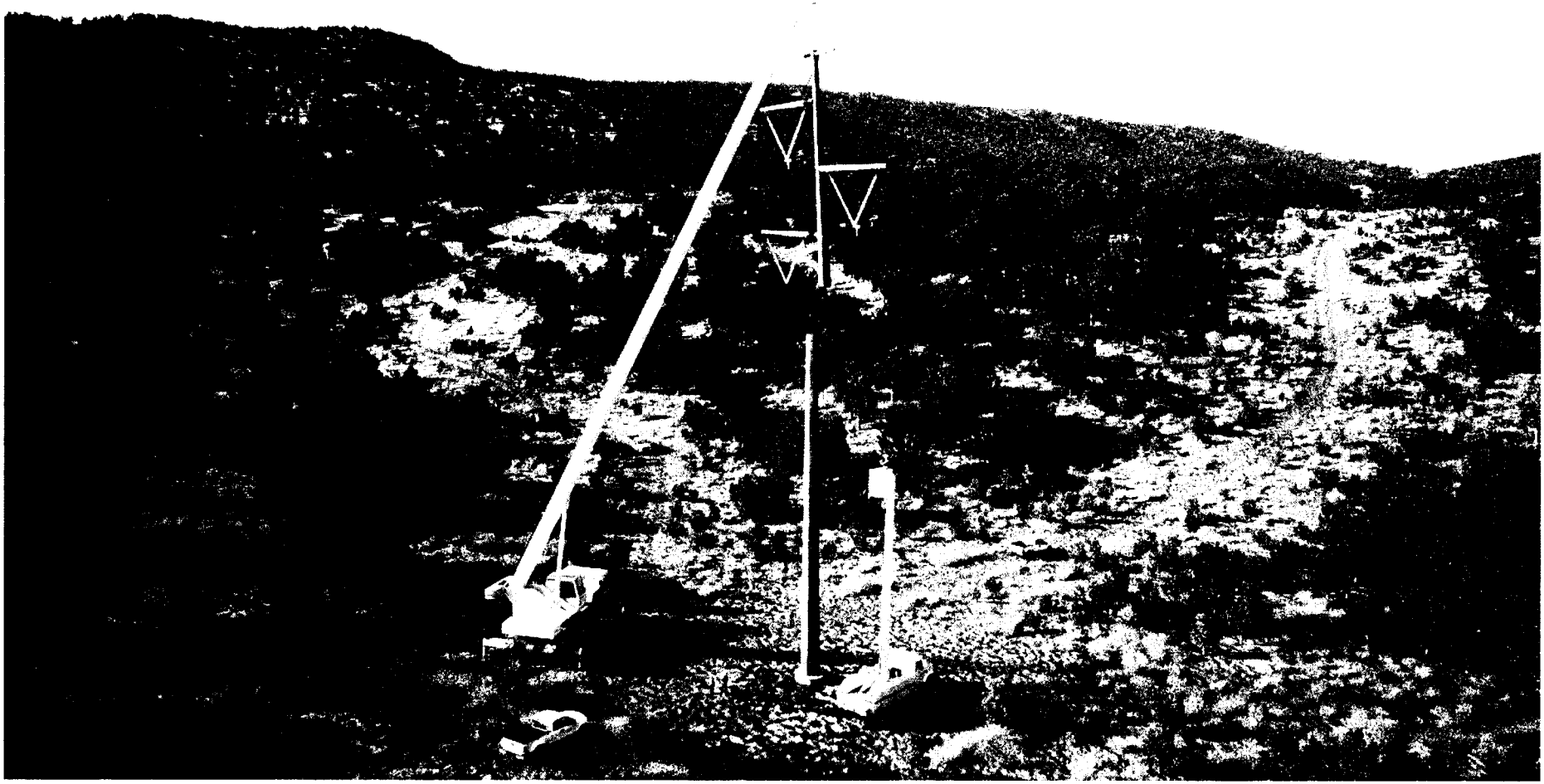
500 kV AC Monopole Construction



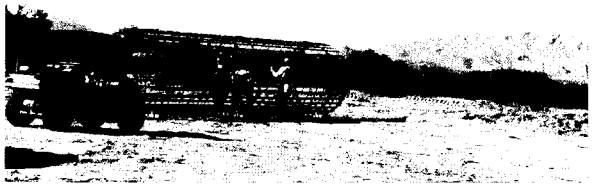
500 kV AC Monopole Construction

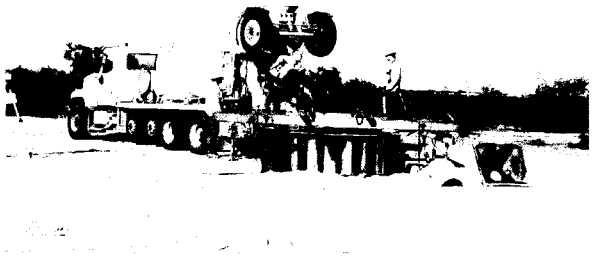


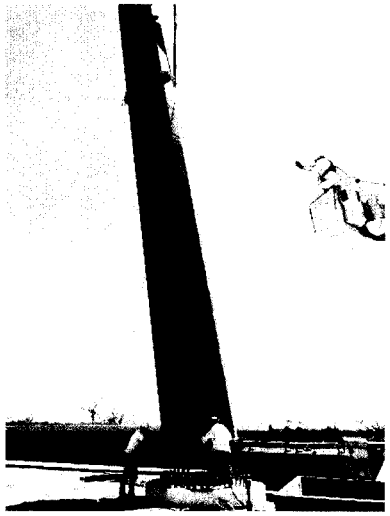
500 kV AC Monopole Construction

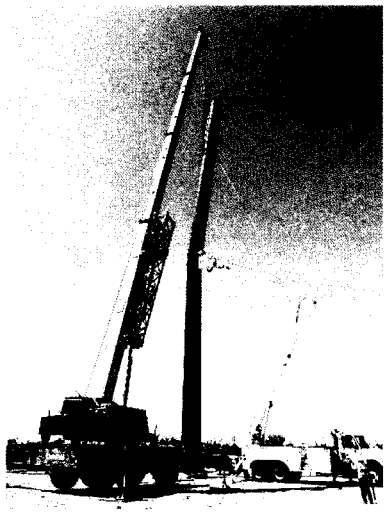


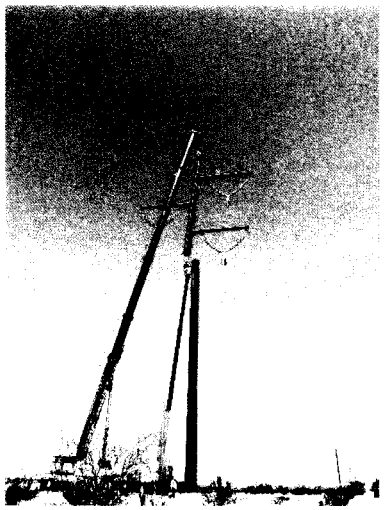
Monopole Construction Pictures





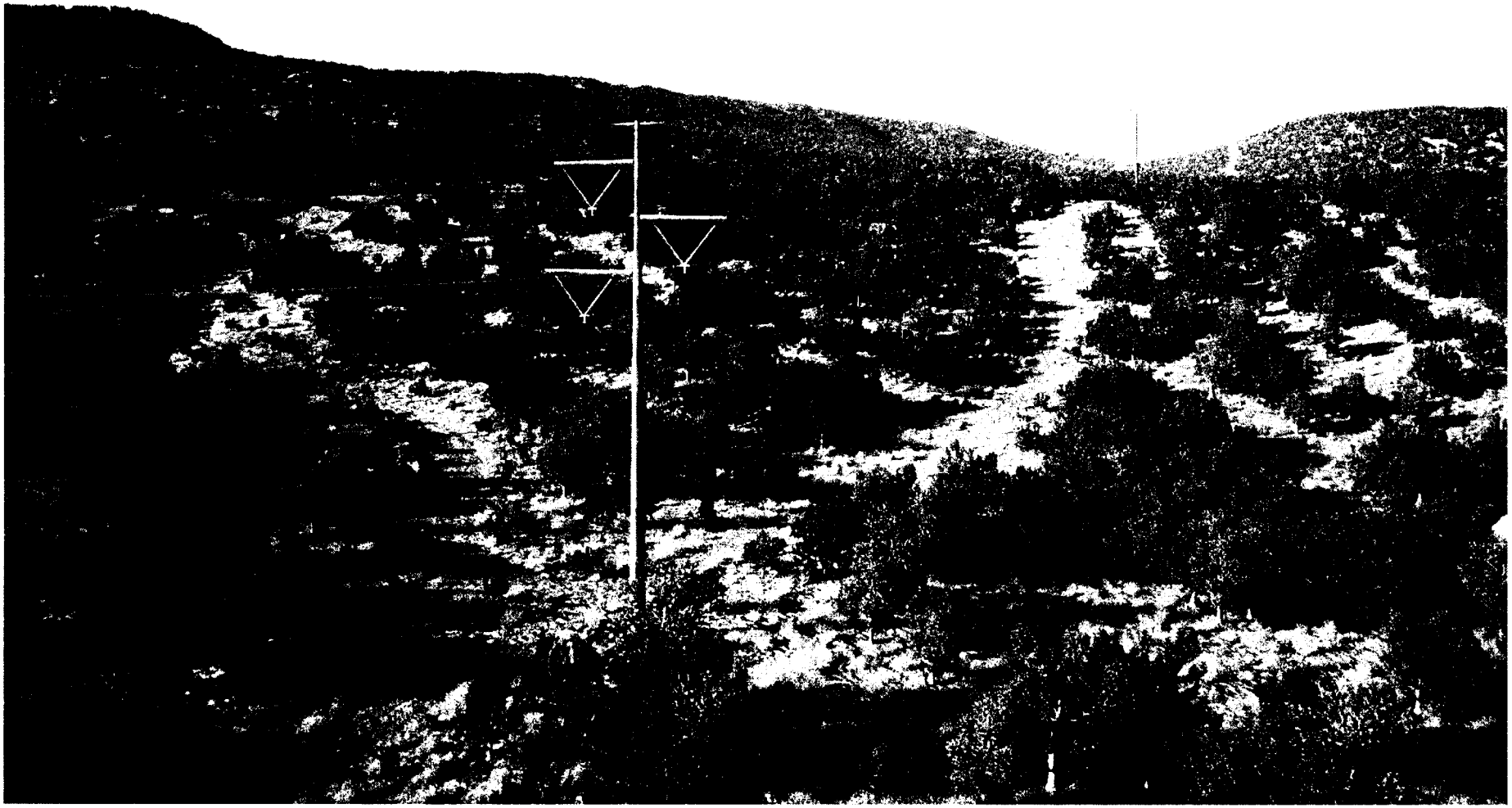




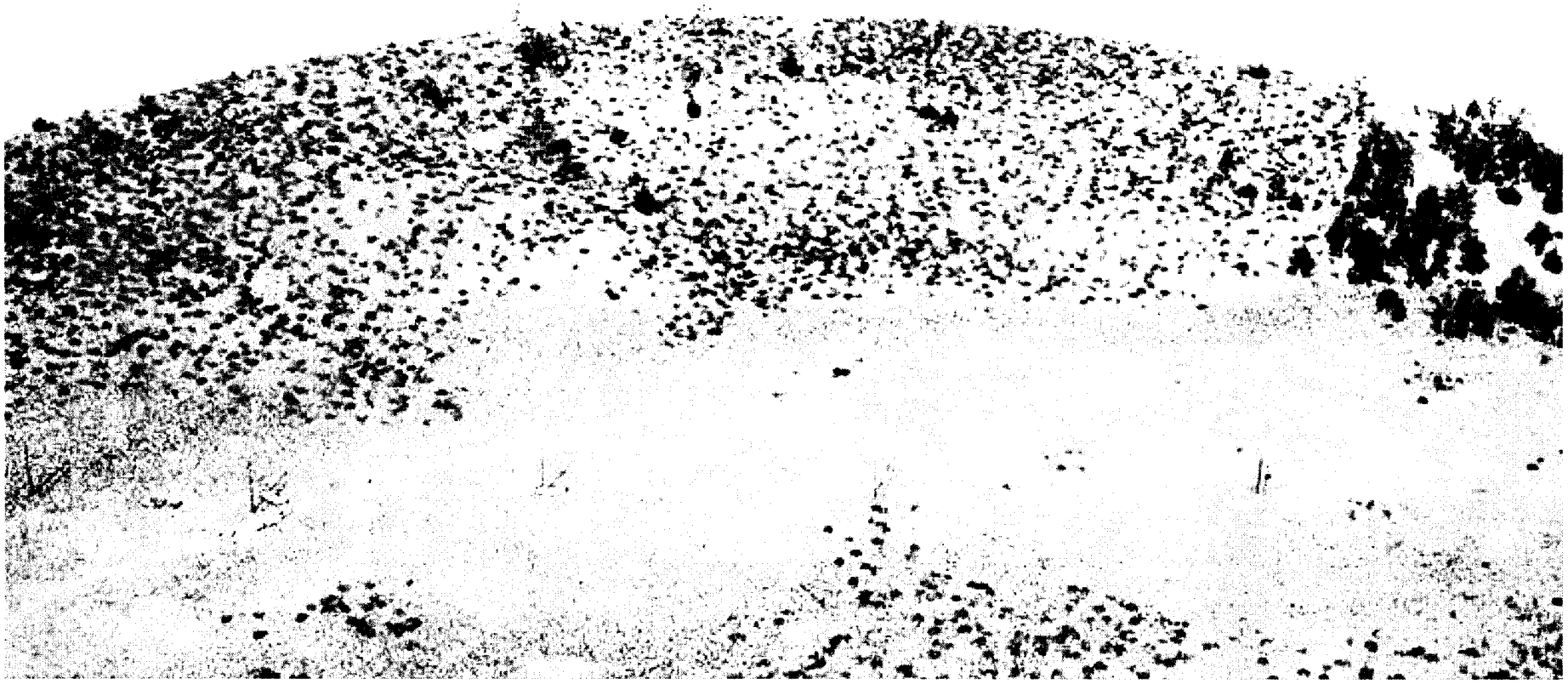


Monopole comprising three sections, total height 150', total weight 49,500 lbs

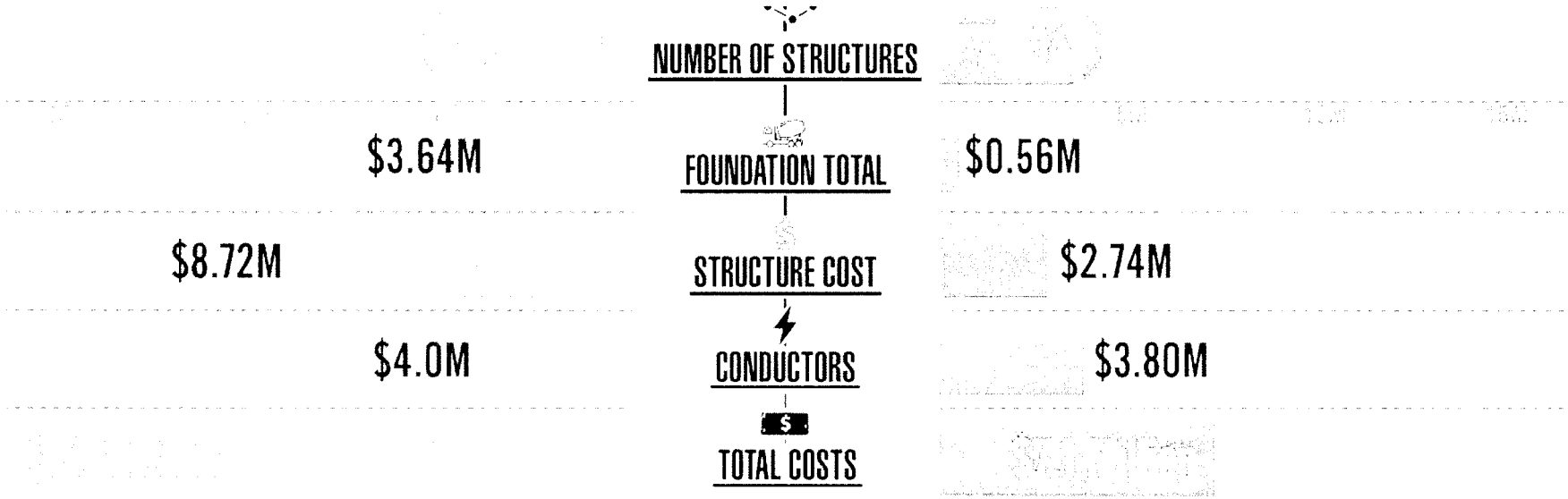
500 kV AC Monopole Construction



Pulling and Tensioning



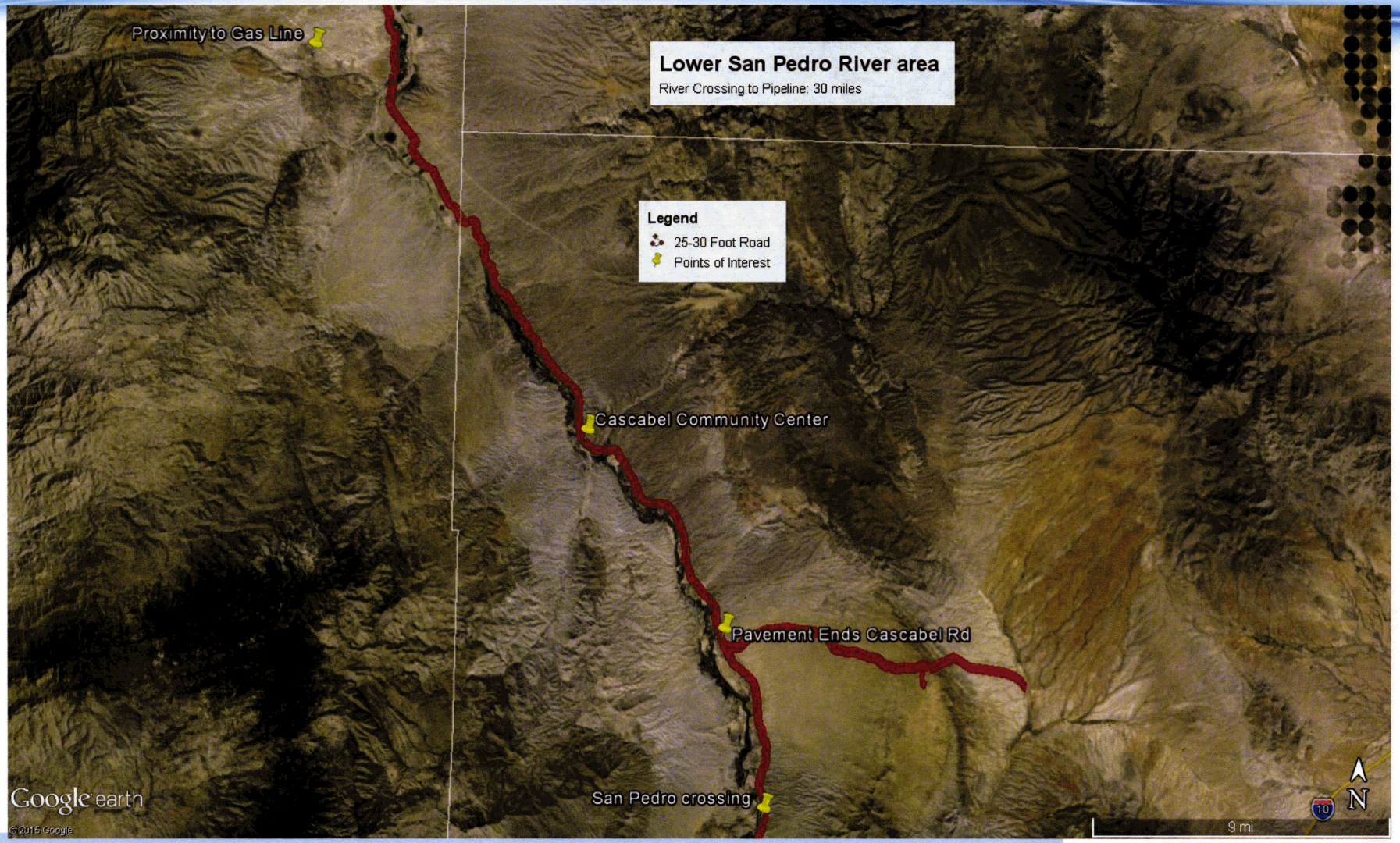
500 kV AC Construction Cost for Comparison (10 miles)



Assumptions: 10 miles, one AC circuit, all tangent structures
Guyed-V: 1550 foot tower spacing, triple bundled conductor
Monopole: 1200 foot tower spacing, triple bundled conductor

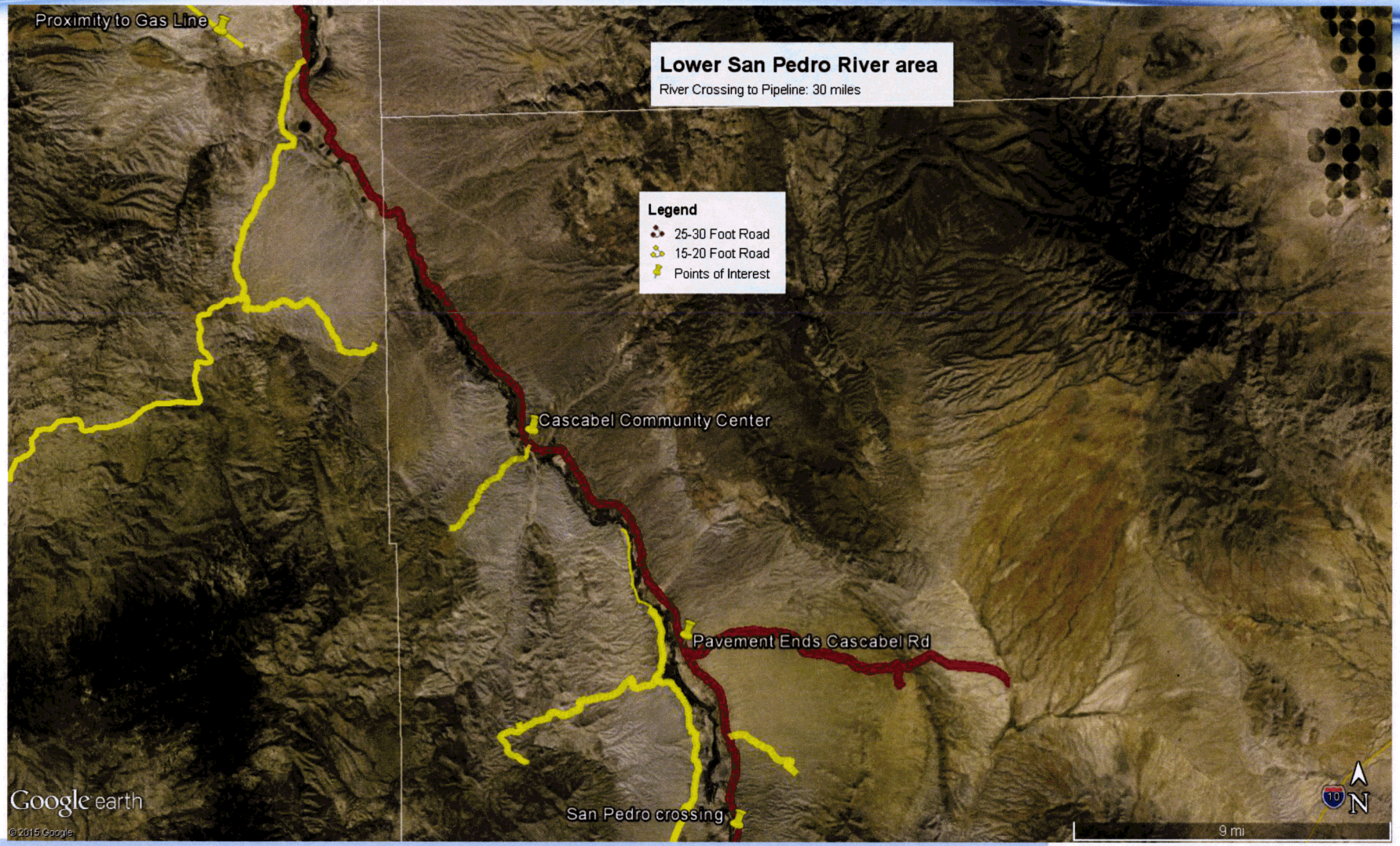
San Pedro Area Access

(Google Earth, 3/22/2013 images)



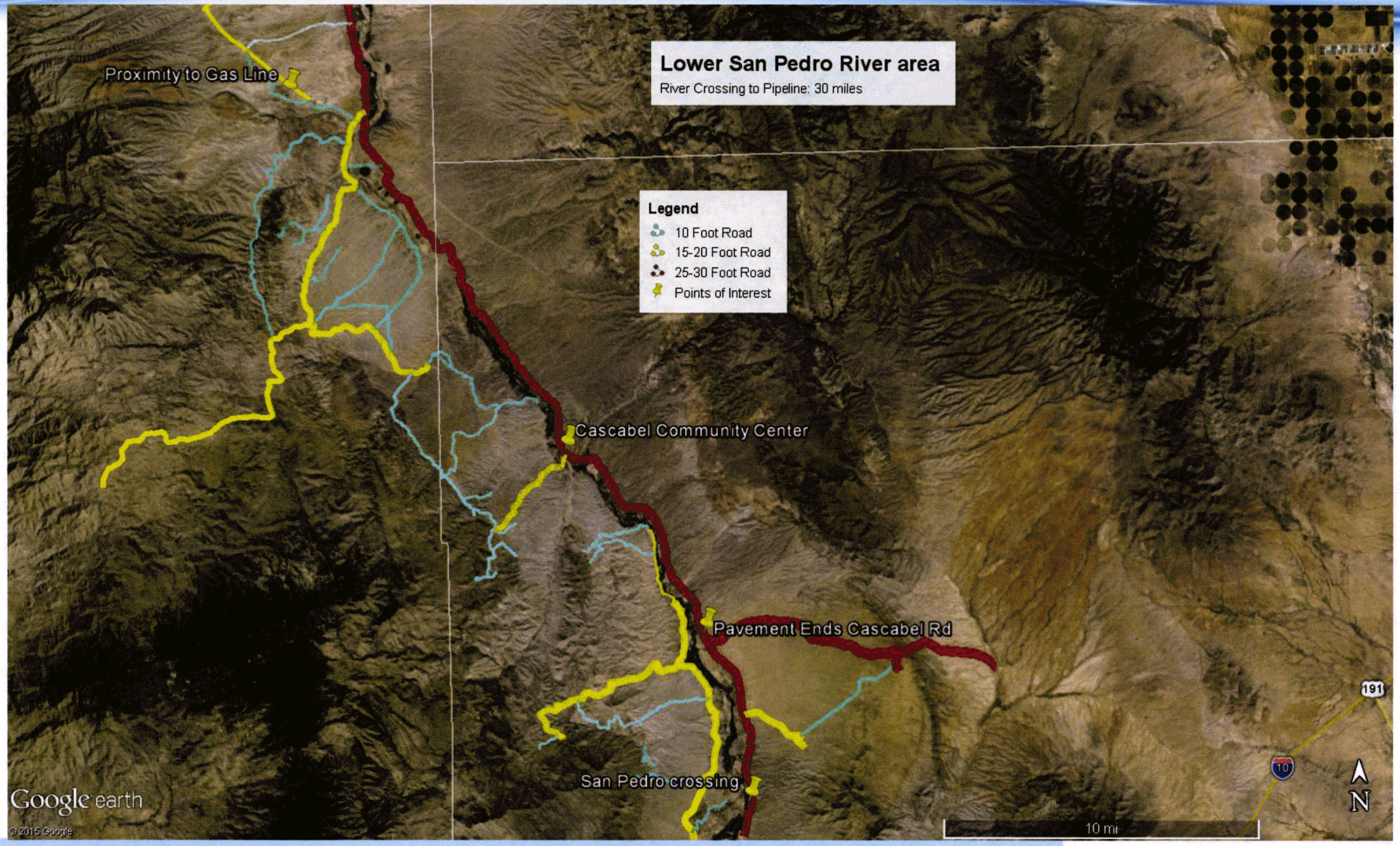
San Pedro Area Access

(Google Earth, 3/22/2013 images)



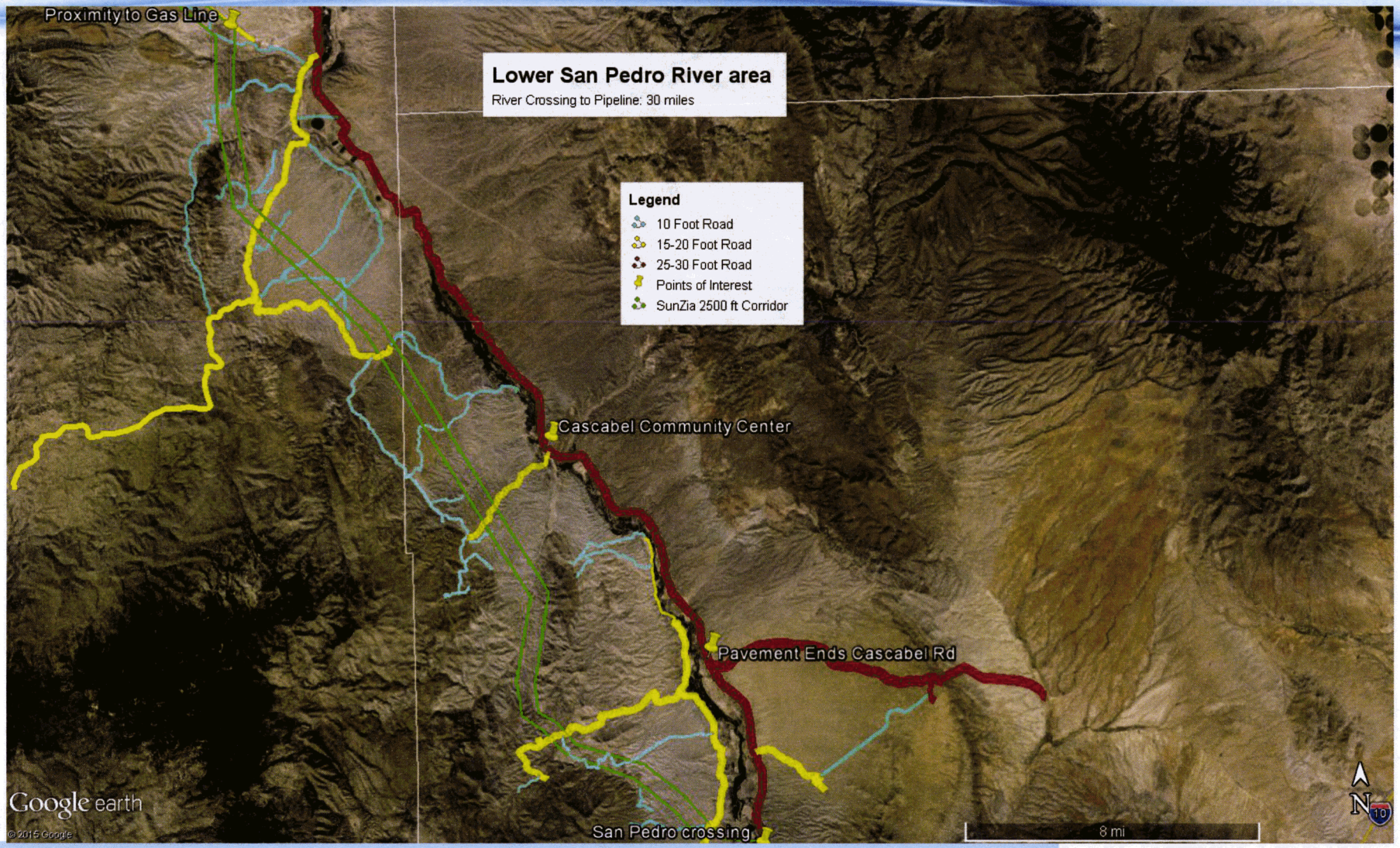
San Pedro Area Access

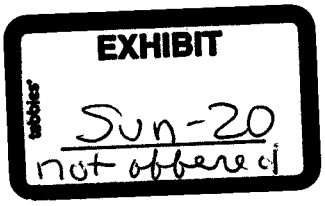
(Google Earth, 3/22/2013 images)



San Pedro Area Access

(Google Earth, 3/22/2013 images)





BEFORE THE
ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF SUNZIA TRANSMISSION LLC, IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE SUNZIA SOUTHWEST TRANSMISSION PROJECT, WHICH INCLUDES THE CONSTRUCTION OF TWO NEW 500 KV TRANSMISSION LINES AND ASSOCIATED FACILITIES ORIGINATING AT A NEW SUBSTATION (SUNZIA EAST) IN LINCOLN COUNTY, NEW MEXICO, AND TERMINATING AT THE PINAL CENTRAL SUBSTATION IN PINAL COUNTY, ARIZONA. THE ARIZONA PORTION OF THE PROJECT IS LOCATED WITHIN GRAHAM, GREENLEE, COCHISE, PINAL, AND PIMA COUNTIES.	DOCKET NO. L-00000YY-15031800171 Siting Case No. 171 **CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY**

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

A. Introduction

Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission Line Siting Committee ("Committee") held public hearings on October 19-21, 2015, in Willcox, Arizona; on October 22-23 and November 2-3, 2015, in Tucson, Arizona; on November 4-5, 2015, in Casa Grande, Arizona; and on November 16-__, 2015, in Florence, Arizona in conformance with the requirements of Arizona Revised Statutes ("A.R.S.") §§ 40-360 *et seq.* for the purpose of receiving evidence and deliberating on the September 2, 2015, Application of SunZia Transmission, L.L.C. ("Applicant") for a Certificate of Environmental Compatibility ("Certificate") in the above-captioned case ("Project"). In conjunction with the foregoing, route tours were conducted from Willcox on October 21, 2015, and from Tucson on November 3, 2015.

The following members and designees of members of the Committee were present at one or more of the hearings for the evidentiary presentations and/or the deliberations:

Thomas K. Chenal	Chairman, Designee for Arizona Attorney General, Mark Brnovich
Steve Olea	Designee of the Chairman, Arizona Corporation Commission
Ian Bingham	Designee for Director, Arizona Department of Environmental Quality
Lisa Williams	Designee for Director, Arizona Department of Water Resources
Jack Haenichen	Appointed Member
David L. Eberhart	Appointed Member
Mary Hamway	Appointed Member
Jeff McGuire	Appointed Member
Patricia Noland	Appointed Member
Jim Palmer	Appointed Member

The Applicant was represented by Albert H. Acken and Samuel Lee Lofland, Ryley Carlock & Applewhite, and Lawrence V. Robertson, Jr., Of Counsel to Munger Chadwick, P.L.C. The following parties were granted intervention pursuant to A.R.S. § 40-360.05: Arizona Corporation Commission Staff, by Charles Hains, Staff Counsel; Pinal County, by Cedric Hay, Deputy County Attorney; Redington NRCD and Winkelman NRCD, by Lat J. Celmins; Robson Ranch Mountains, LLC, by Jay L. Shapiro; Norm "Mick" Meader, in propria persona; Peter T. Else, in propria persona; and, Christina McVie, in propria persona.

At the conclusion of the hearings, the Committee, after considering the (i) Application, (ii) evidence, testimony, and exhibits presented by the Applicant and intervenors, and (iii) comments of the public, and being advised of the legal requirements of A.R.S. §§ 40-360 through 40-360.13, upon motion duly made and seconded, voted __ to __ to grant the Applicant this Certificate for construction of the Project.

B. Overview Project Description

The Project includes the construction and operation of two new 500 kilovolt (kV) interstate transmission lines and associated Project facilities originating at a new substation (SunZia East) in Lincoln County, New Mexico and terminating at the Pinal Central Substation in Pinal County, Arizona. This Certificate approves construction of the Project within the State of Arizona. The Project as approved herein consists of two new, single-circuit 500 kV transmission lines and associated facilities including a new 500kV substation ("500 kV Willow Substation"), and a direct current (DC) converter station. All Project components are located within Greenlee, Graham, Cochise, Pima and Pinal counties and the City of Coolidge. A general location map of the Project is depicted in Exhibit A to the Application.

A 200-foot wide right-of-way is approved for each transmission line within the corridor depicted on the CEC Corridor Map (Attachment A, Panels a through g). The width of the certificated corridor is 2,500 feet, with the exception of the following segments where the specified corridor crosses private lands: 1) a width of 750 feet along the corridor segment located in Cochise County, from a point approximately 4 miles east to a point 1 mile west of Ft. Grant Road (Attachment A, Panel b); and 2) a width of 1,200 feet along the corridor segment located in Pinal County north of Hardy Road, from a point 2 miles west of the Central Arizona Project Canal to a point approximately 0.5 mile east of SR 87 (Attachment A, Panel g).

There will typically be a 50-foot separation between the two (2) rights-of-way. However, in some locations, the separation may be up to 1,000 feet to avoid or traverse adjacent terrain features or heavy equipment limitations, and to preserve critical habitat, existing land uses and important cultural resources. At least one of the two 500 kV transmission lines will be constructed and operated as an alternating current (AC) facility; the other transmission line will be either an AC or DC facility. As contemplated and provided for in this Certificate, the two (2) transmission lines may be constructed at different points in time.

In addition, the Project includes construction of the new 500 kV Willow Substation on lands managed by the Arizona State Land Department (ASLD) in Graham County, Arizona. The location of the 500 kV Willow Substation is approximately three miles north of the Cochise County line and approximately 1.1 miles east of US Highway 191 as depicted in Exhibit A to the Application. The Project terminates at the existing Pinal Central Substation, which was approved by the Arizona Corporation Commission ("Commission") in 2005 (Siting Case No. 126; Decision No. 68093) and thereafter constructed by Salt River Project. The Pinal Central Substation is located approximately 7.5 miles east of Interstate 10 on privately owned land within the City of Coolidge, Arizona. These two (2) substations will provide Arizona utilities and load centers with access to renewable energy transmitted on the Project's two (2) transmission lines.

Finally, a DC converter station will be required if the 500 kV DC transmission line option is utilized, in order to convert the flow of electricity from DC to AC and thereby allow the DC line to deliver energy to the Pinal Central Substation. The converter station herein approved would be constructed within a fenced parcel of up to 45 acres, located within the 2,500 foot wide corridor, no more than 1 mile east of the Pinal Central Substation, as depicted in Exhibit G to the Application, Figure G-3-3. The interconnection between the Pinal Central Substation and the DC converter station would require two (2) 500 kV AC transmission lines, which also would be constructed within the 2,500 foot wide corridor. Typical Project design features and details, including structure diagrams anticipated for the Project, are provided in Exhibit G to the Application.

C. <u>Approved Project Route Description</u>

The route herein approved (Route) is a total of approximately 200 miles in length within Arizona, and will be parallel to approximately 117 miles of existing or designated utility corridors. The Route crosses the New Mexico-Arizona state line from Hidalgo County, New Mexico into Greenlee County, Arizona, approximately three miles north of the Cochise County line. The Route then proceeds east to west for approximately 37 miles from the state line into Graham County south of the Hot Well Dunes Recreation Area, and

continues through the San Simon Valley to the Willow-500 kV Substation, located approximately 3 miles north of the Cochise County line and 1 mile east of US Highway 191 in Graham County, Arizona.

The Route then proceeds southwest from the Willow-500 kV Substation, parallel to two (2) 345 kV transmission lines operated by Tucson Electric Power Company (TEP) for approximately 47 miles, and crosses two (2) pipelines and US Route 191. The Route then crosses the TEP 345 kV lines approximately 1 mile west of the San Pedro River and turns northwest and continues through the northeast corner of Pima County into Pinal County, of which approximately 12 miles will be parallel to an existing pipeline corridor. The Route then turns and heads west approximately 2 miles west of San Manuel. The route crosses SR 77 approximately 5 miles northwest of the community of Oracle, continues west for 13 miles where it crosses and then continues southwesterly and parallel to Arizona Public Service Company's Cholla-Saguaro 500 kV transmission line for 5 miles. From that point, the route crosses SR 79 near the Oracle Junction Substation, then continues to the west and parallel to the Cholla-Saguaro 500 kV line for approximately 13 miles. The Route then proceeds northwest, then north and parallel to TEP's Pinal Central-Tortolita 500 kV transmission line for approximately 16 miles (Siting Case No. 165; Decision No. 73282). The Route then turns northwest, then west, continuing to parallel the Pinal Central-Tortolita 500 kV line and a pipeline corridor for approximately 6 miles. As the Route then heads west, it crosses a Central Arizona Project canal and SR 87 before it proceeds to the Pinal Central Substation, located on the southeast corner of SR 287 and Eleven Mile Corner Road, paralleling the Pinal Central-Tortolita 500 kV line for an additional 12 miles. If one of the lines is constructed as a DC facility, then the Project will include construction of a new DC converter station, which will be located within the 2,500-foot wide corridor at a location no more than 1 mile east of the Pinal Central Substation.

CONDITIONS

This Certificate is granted upon the following conditions:

1. The Applicant shall comply with all existing applicable statutes, ordinances, master plans, and regulations of any governmental entity having jurisdiction during the construction of the Project, including the United States of America, the counties of Greenlee, Graham, Cochise, Pima and Pinal, and the City of Coolidge. [CEC Siting Case No. 170]

2. Applicant shall comply with the notice and salvage requirements of the Arizona Native Plant Law (A.R.S. §§ 3-901, et seq.) and shall, to the extent feasible, minimize the destruction of native plants during Project construction. [CEC Siting Case No. 170]

3. Applicant shall comply with the Arizona Game and Fish Department ("AGFD") guidelines for handling protected animal species, should any be encountered during construction. [CEC Siting Case No. 168]

4. The Applicant shall design the transmission lines to incorporate reasonable measures to minimize impacts to raptors. Such design will likely be accomplished through Applicant's compliance with its Avian Protection Plan ("APP"), which will be developed pursuant to the Record of Decision ("ROD") issued by the United States Bureau of Land Management ("BLM") on January 23, 2015. Once completed, the APP will become part of, and be incorporated into, this Certificate. [CEC Siting Case No. 170]

5. The ROD issued by BLM requires the Applicant to prepare a Plan of Development ("POD") outlining and detailing the relevant construction, mitigation, and restoration requirements for the Project prior to commencing construction on any portion thereof. Where practicable, the POD shall specify that the Applicant (a) use existing roads for construction and access, (b) minimize impacts to wildlife, (c) minimize vegetation disturbance outside of the Project right-of-way, and (d) re-vegetate, unless re-vegetation is waived by the landowner, native areas following construction disturbance. [CEC Siting Case No. 170]

6. The POD shall specify the Applicant's plans for coordination with AGFD and the State Historic Preservation Office ("SHPO"). The Applicant shall use existing roads for

construction and access where practicable, consistent with the requirements of the ROD, on any lands traversed within the Arizona portion of the Project. [CEC Siting Case No. 165]

7. The Applicant shall work with a representative designated by the Redington Natural Resources Conservation District and the Winkelman Natural Resources Conservation District (collectively, the "NRCDs") to develop and implement the SunZia Project POD provisions regarding fields of land, soil, water, and natural resources management within the boundaries of the NRCDs during construction and maintenance activities within the NRCDs' respective area boundaries. Areas of concern to the NRCDs are minimizing soil disturbance requiring, where possible and technically feasible, overland access and/or aerial construction; utilization of existing roads for construction and maintenance activities, where possible; determination of best management practices for re-vegetation following conclusion of construction activities within the NRCDs; determination of best management practices for erosion control during construction and maintenance activities; dust abatement and other similar areas where the NRCDs' designated representatives have special knowledge of the-fields of land, soil, water, and natural resources management within the boundaries of each NRCD relevant to the development of the POD. Where the Project is located within the NRCDs' district boundaries, but also on ASLD trust lands, all proposed POD provisions developed pursuant to this Condition will be subject to the consent and approval of the ASLD. Where the Project is located within the NRCDs' boundaries but also on BLM-administered lands, all proposed POD provisions developed pursuant to this Condition will be subject to the consent and approval of the BLM.

8. Pursuant to the ROD, the Applicant will respond to complaints of line generated radio or television interference by promptly investigating the complaints and implementing appropriate mitigation measures. In addition, the transmission line(s) will be evaluated on a regular basis so that damaged insulators or other line materials that could cause interference are timely repaired or replaced.

9. If any archaeological site, paleontological site, historical site or an object that is at least fifty years old is discovered on state, county, or municipal land during the construction of the Project, the Applicant or its representative in charge shall promptly report the discovery to the Director of the Arizona State Museum ("ASM"), and in consultation with the Director, shall immediately take all reasonable steps to secure and maintain the preservation of the discovery, pursuant to A.R.S. § 41-844. Such steps will likely be accomplished through compliance with the Historic Properties Treatment Plan ("HPTP") for archaeological and historical sites, and the Paleontological Resources Monitoring Plan ("PRMP") for paleontological sites, both which will be developed pursuant to the ROD. Once completed, the HPTP and the PRMP will become part of, and be incorporated into, this Certificate. [CEC Siting Case No. 170]

10. If human remains and/or funerary objects are encountered on private land during the course of any ground-disturbing activities related to the construction of the Project, Applicant shall cease work on the affected area of the Project and notify the Director of the ASM as required by A.R.S. § 41-865. [CEC Siting Case No. 170]

11. Applicant will comply with the HPTP to be developed pursuant to the Programmatic Agreement ("PA") entered into on December 17, 2014, to ensure that pre-construction archaeological testing and monitoring of all ground clearing and disturbing construction activities that may affect historical or cultural sites that are listed, or eligible for listing, on the Arizona Register of Historic Places ("Register") are conducted in full compliance with Arizona and Federal law. In the event a listed or listing-eligible site is discovered, the Applicant will ensure that approved mitigation measures are implemented according to the PA. Applicant shall share results of any archaeological work and findings with the appropriate Tribes. [CEC Siting Case No. 169]

12. Before construction of the Project may commence, the Applicant shall file a copy of each of the following documents with the Commission's Docket Control: (a) PA, (b) HPTP, (c) PRMP, (d) POD, and (e) ROD, including any amendments to any of such documents subsequent to the granting of this Certificate. Further, in addition to compliance

with the conditions set forth in this Certificate, the Applicant shall comply with the provisions of these documents as applicable to the Arizona portion of the Project.

13. Within one hundred twenty (120) days of the Commission decision approving this Certificate, the Applicant will post signs in or near public rights-of-way giving notice of the Project corridor to the extent authorized by law. The Applicant shall place such signs in prominent locations at reasonable intervals (no more than one-half mile, subject to obtaining permission from the landowner) so that the public is notified along the full length of the Project until the transmission structures are constructed. To the extent practicable, within forty-five (45) days of securing easements or rights-of-way for the Project, the Applicant shall erect and maintain signs providing public notice that the property is the site of a future transmission line or substation. Such signage shall be no smaller than a normal roadway sign. The signs shall advise:

(a) That the site has been approved for the construction of Project facilities;

(b) The expected date of completion of the Project facilities;

(c) A phone number for public information regarding the Project;

(d) The name of the Project;

(e) The name of the Applicant; and

(f) The website of the Project. [CEC Siting Case No. 170]

14. Within one hundred twenty (120) days of the Commission decision granting this Certificate, the Applicant shall make good faith efforts to commence discussions with private landowners on whose property the Project corridor is located to identify the specific location for the Project's right-of-way and placement of poles. A description of the good faith efforts and discussions shall be included in the annual compliance-certification letter. [CEC Siting Case No. 170]

15. The Applicant will pursue reasonable efforts to work with private landowners on whose property the Project right-of-way will be located to mitigate the impacts of the location, construction, and operation of the Project on private land. A description of these

reasonable efforts shall be included in the annual compliance certification letter. [CEC Siting Case No. 170]

16. At least ninety (90) days, but not more than three hundred sixty-five (365) days before construction commences on the Project, the Applicant shall provide known homebuilders and developers who are building upon or developing land within a half-mile of the Project with a written description of the Project. The written description shall identify the location of the Project and contain a pictorial depiction of the Project. The Applicant shall also encourage the developers and homebuilders to include this information in their disclosure statements. [CEC Siting Case No. 170]

17. The Applicant shall use non-specular conductor and non-reflective surfaces for the Project's transmission line structures. [CEC Siting Case No. 170]

18. The Applicant will follow the most current Western Electricity Coordinating Council/North American Electric Reliability Corporation planning standards, as approved by the Federal Energy Regulatory Commission, and National Electrical Safety Code construction standards. [CEC Siting Case No. 170]

19. With respect to the Project, the Applicant shall participate in good faith in state and regional transmission study forums to coordinate transmission expansion plans related to the Project and to resolve transmission constraints in a timely manner. [CEC Siting Case No. 170]

20. When Project facilities are located parallel to and within 100 feet of any existing natural gas or hazardous pipeline, the Applicant shall:

a) Ensure grounding and cathodic protection measurements are performed to show that the Project's location parallel to and within 100 feet of such pipeline results in no material adverse impacts to the pipeline or to public safety when both the pipeline and the Project are in operation. The Applicant shall take appropriate steps to ensure that any material adverse impacts are mitigated. The Applicant shall provide to the Commission Staff and file with Docket Control a copy of the

measurements performed and additional mitigation, if any, that was implemented as part of its annual compliance-certification letter; and

b) Ensure that measurements are taken during an outage simulation of the Project that may be caused by the collocation of the Project parallel to and within 100 feet of the existing natural gas or hazardous liquid pipeline. The measurements should either: (i) show that such simulated outage does not result in customer outages; or (ii) include operating plans to minimize any resulting customer outages. The Applicant shall provide a copy of the measurement results to the Commission Staff and file it with Docket Control as part of its annual compliance-certification letter. [CEC Siting Case No. 170]

21. The Applicant shall submit a compliance certification letter annually, identifying progress made with respect to each condition contained in this Certificate, including which conditions have been met. Each letter shall be submitted to Commission's Docket Control commencing on January 31, 2017. Attached to each certification letter shall be documentation explaining how compliance with each condition was achieved. Copies of each letter, along with the corresponding documentation, shall be submitted to the Arizona Attorney General and the Governor's Office of Energy Policy. The requirement for the compliance certification letter shall expire on the date the Project is placed into operation. [CEC Siting Case No. 170]

22. The Applicant shall provide copies of this Certificate to the counties of Greenlee, Graham, Cochise, Pima and Pinal, the City of Coolidge, SHPO and AGFD. [CEC Siting Case No. 170]

23. This authorization to construct the Project shall expire at two (2) different points in time, unless extended by the Commission, as provided below:

a) The Certificate for the first 500 kV transmission line and related facilities and the 500 kV Willow Substation shall expire ten (10) years from the date this Certificate is approved by the Commission, with or without modification.

b) The Certificate for the second 500 kV transmission line and related facilities shall expire twenty (20) years from the date this Certificate is approved by the Commission, with or without modification.

However, prior to the expiration of either time period, the Applicant may request that the Commission extend either or both time limitation(s). [CEC Siting Case No. 170]

24. In the event that the Project requires an extension of either or both term(s) of this Certificate prior to completion of construction, the Applicant shall use reasonable means to notify all landowners and residents within a half-mile radius of the area of the Project, all persons who made public comment at this proceeding who provided a mailing address, and all parties to this proceeding of the request and the date, time, and place of the hearing or Open Meeting during which the Commission will consider the request for extension. [CEC Siting Case No. 170]

25. Any transfer or assignment of this Certificate shall require the assignee or successor to assume in writing all responsibilities of the Applicant listed in this Certificate and its conditions as required by A.R.S. § 40-360.08(A) and R14-3-213(F) of the Arizona Administrative Code. [CEC Siting Case No. 170]

FINDINGS OF FACT AND CONCLUSIONS OF LAW

This Certificate incorporates the following Findings of Fact and Conclusions of Law:

1. The Project aids the state and the southwest region in meeting the need for an adequate, economical, and reliable supply of electric power. [CEC Siting Case No. 168]

2. The Project aids the state in preserving a safe and reliable electric transmission system. [CEC Siting Case No. 168]

3. The Project will assist the state in meeting the goal of increasing the use of renewable energy in the state. [CEC Siting Case No. 167]

4. The Project and the conditions placed on the Project in this Certificate effectively minimize the Project's impact on the environment and ecology of the state. [CEC Siting Case Nos. 168 and 170]

5. The conditions placed on the Project in this Certificate resolve matters concerning balancing the need for the Project with its impact on the environment and ecology of the state arising during the course of the proceedings, and, as such, serve as findings and conclusions on such matters. [CEC Siting Case No. 168]

6. The Project is in the public interest because the Project's contribution to meeting the need for an adequate, economical, and reliable supply of electric power outweighs the minimized impact of the Project on the environment and ecology of the state. [CEC Siting Case No. 170]

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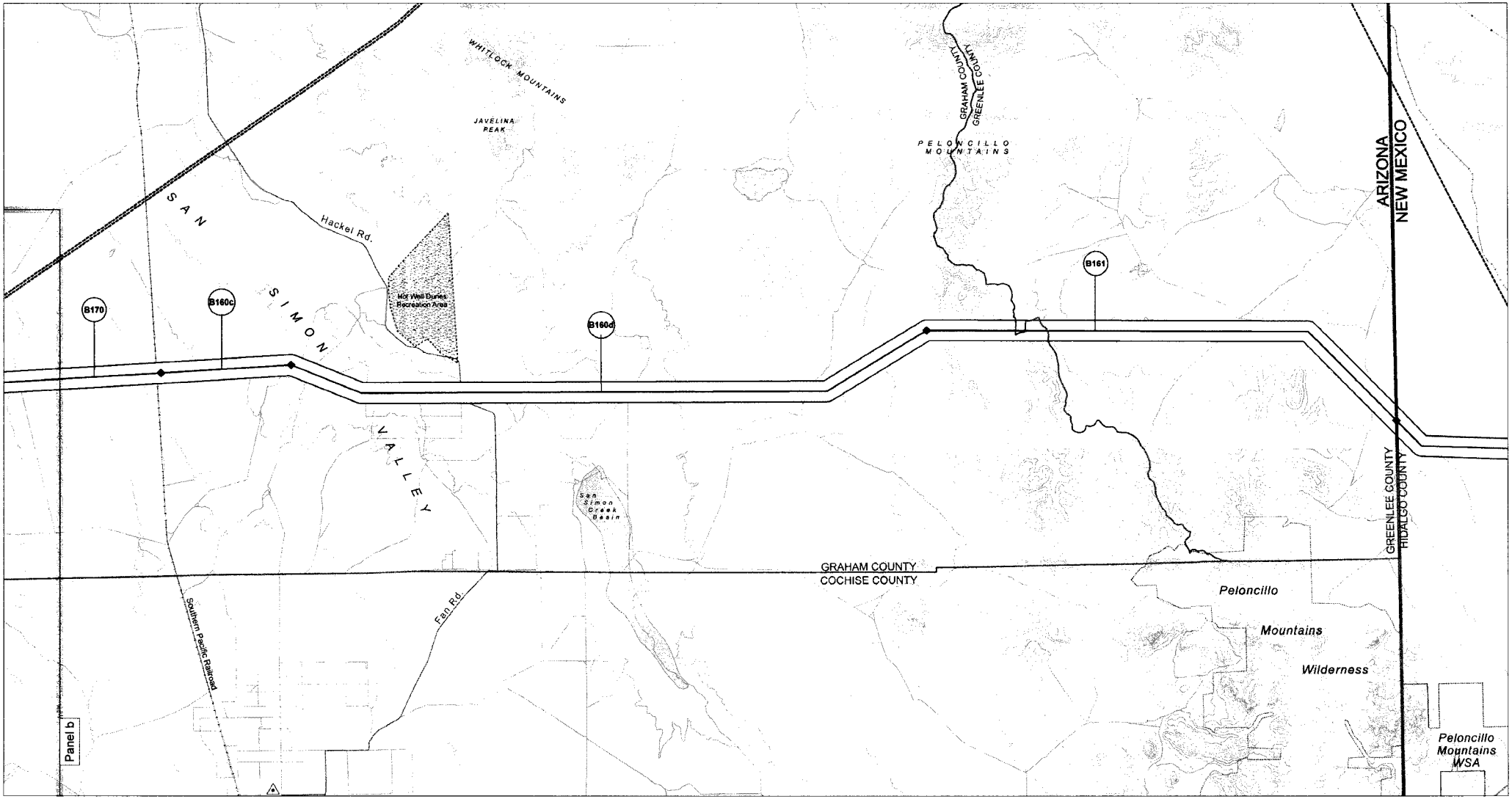
DATED this ___ day of _____, 2015.

THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE

By: _____
Thomas K. Chenal, Chairman



CEC Corridor Map

SUNZIA SOUTHWEST TRANSMISSION PROJECT

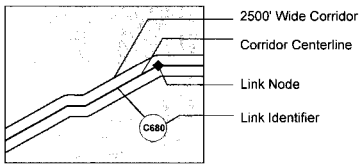
SunZia

Panel a

Case No. 171

Attachment A

Project Features

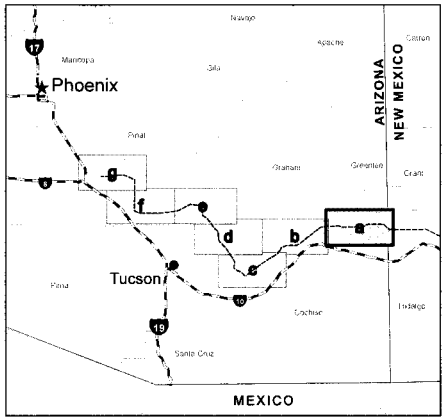


Utilities

- Existing Substation
- Proposed Willow 500 kV Substation
- Proposed 500 kV DC Converter Station (option)
- Existing Transmission Lines
- Pipeline
- Canal

Reference Features

- City/Town
- Interstate
- Highway
- Local Road
- Railroad
- River/Stream
- State Boundary
- County Boundary
- City/Town Boundary
- Jurisdictional Boundary
- Lake/Reservoir



Sources

Bureau of Land Management, Arizona State Office, 2010
Arizona State Land Department and ALRIS, 2010
Pima County, 2015
ESRI StreetMap, 2013
USGS, 2015

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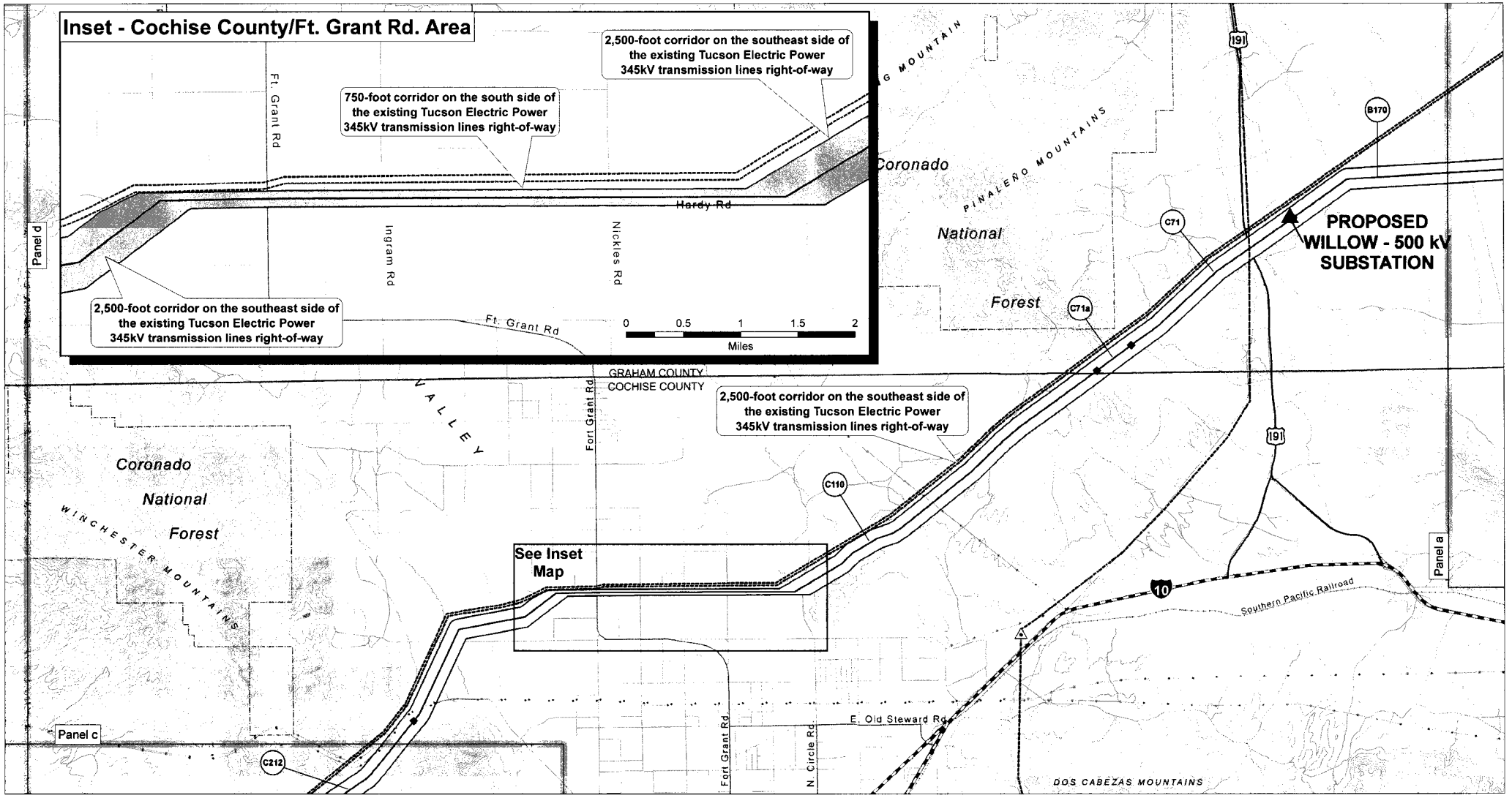

CEC Corridor Map

SUNZIA SOUTHWEST TRANSMISSION PROJECT

SunZia

Panel b

Case No. 171

Attachment A

Project Features

- 2500' Wide Corridor
- Corridor Centerline
- Link Node
- Link Identifier

Utilities

- Existing Substation
- Proposed Willow 500 kV Substation
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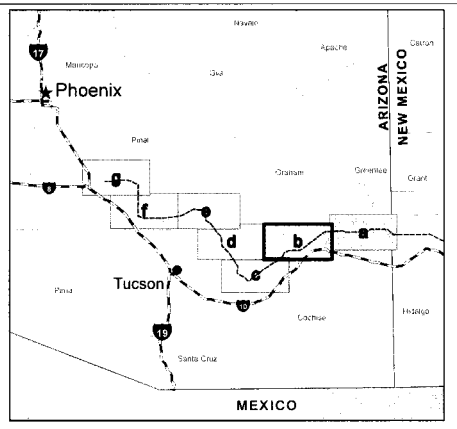

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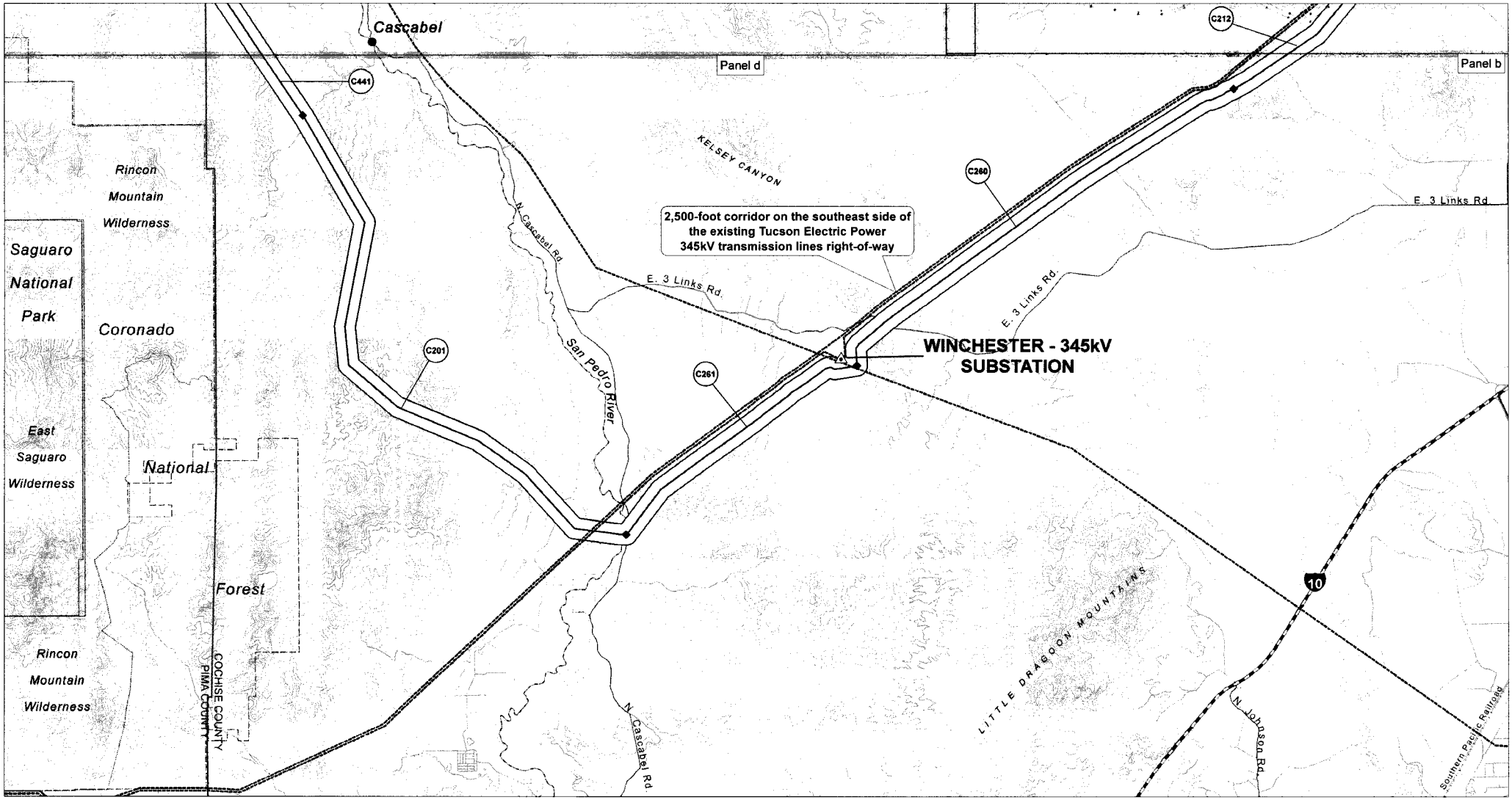


CEC Corridor Map

SUNZIA SOUTHWEST TRANSMISSION PROJECT

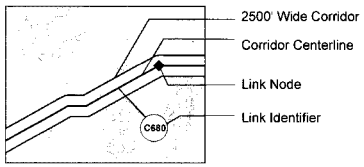
SunZia

Panel c

Case No. 171

Attachment A

Project Features



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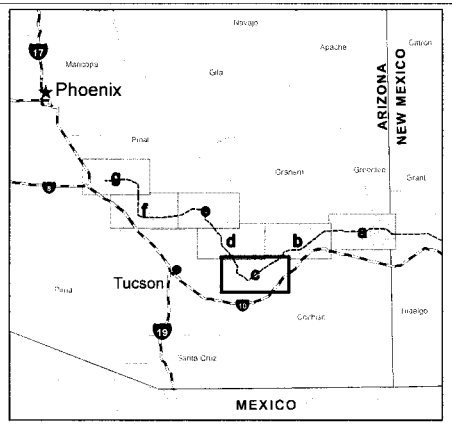

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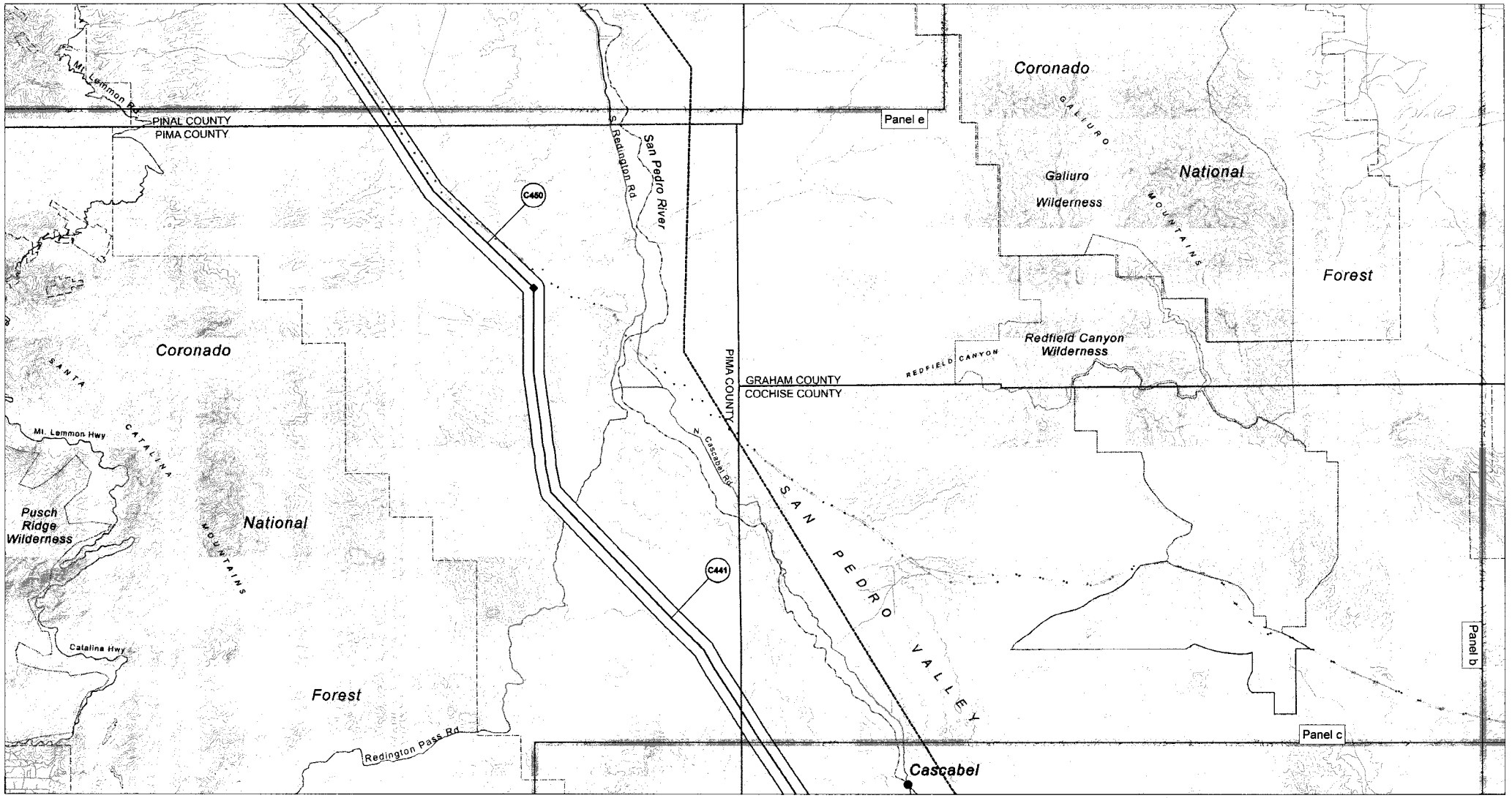

CEC Corridor Map

SUNZIA SOUTHWEST TRANSMISSION PROJECT

SunZia

Panel d

Case No. 171

Attachment A

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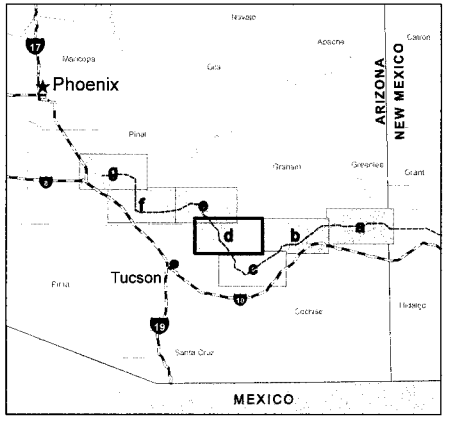

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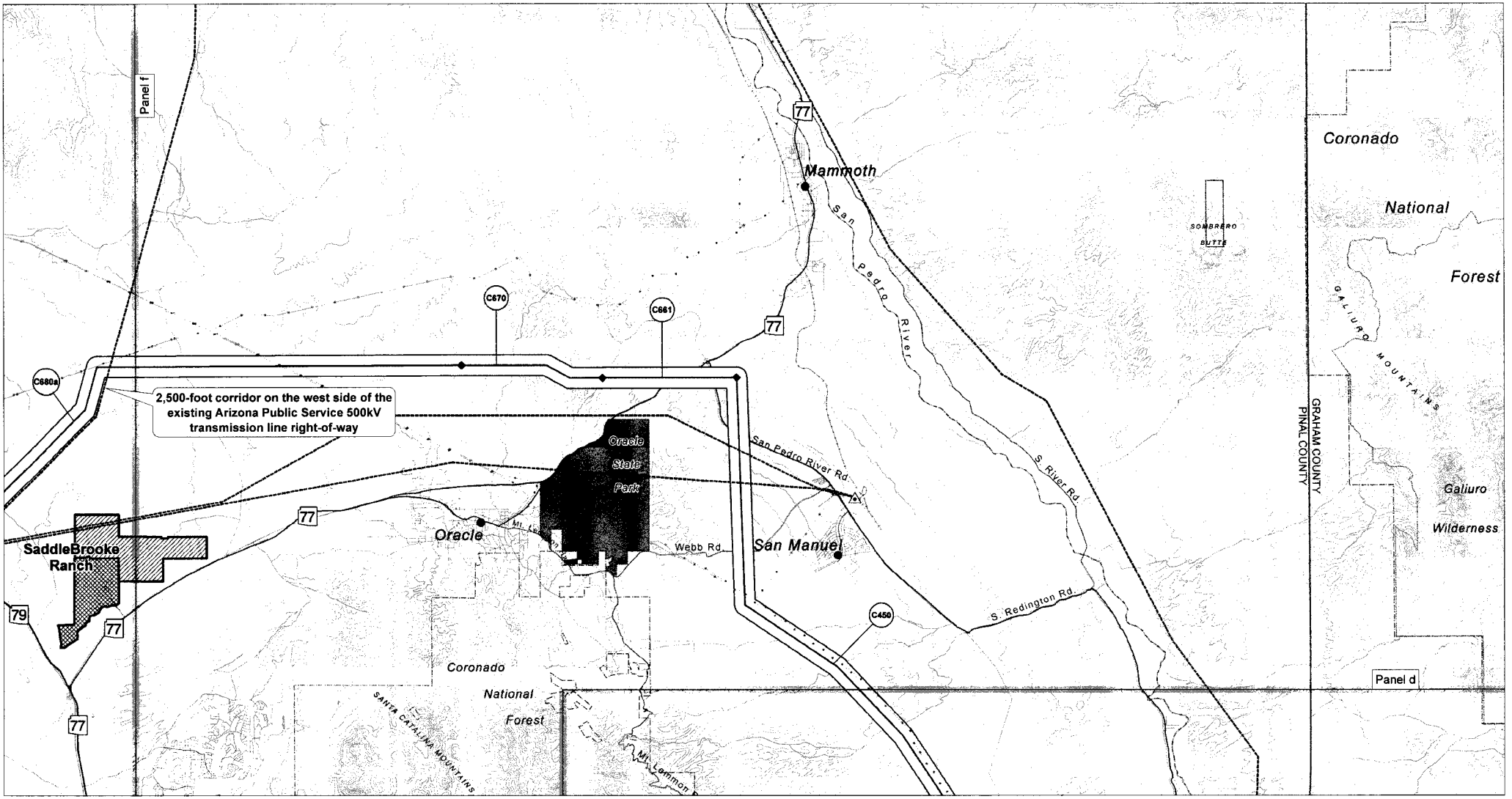

CEC Corridor Map

SUNZIA SOUTHWEST TRANSMISSION PROJECT

SunZia

Panel e

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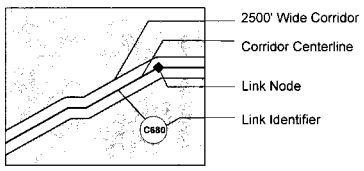
Attachment A

Project Features

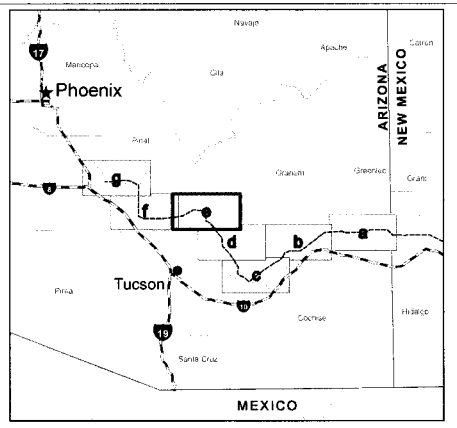


Utilities

- Existing Substation
- Proposed Willow 500 kV Substation
- Proposed 500 kV DC Converter Station (option)
- Existing Transmission Lines
- Pipeline
- Canal

Reference Features

- City/Town
- Interstate
- Highway
- Local Road
- Railroad
- River/Stream
- State Boundary
- County Boundary
- City/Town Boundary
- Jurisdictional Boundary
- Lake/Reservoir



Sources

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Bureau of Land Management, Arizona State Office, 2010
Arizona State Land Department and ALRIS, 2010
Pima County, 2015
ESRI StreetMap, 2013
USGS, 2015

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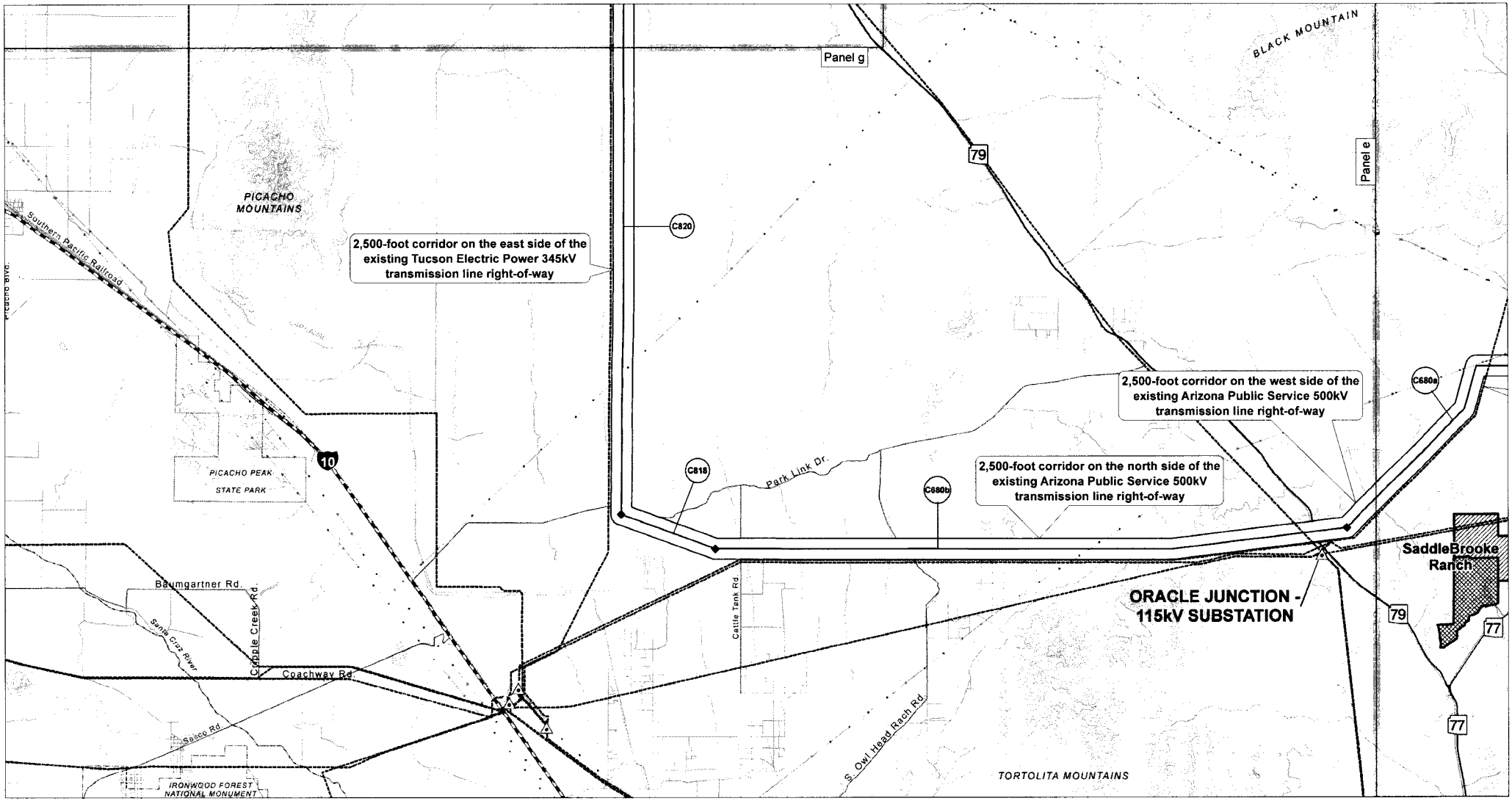


CEC Corridor Map

SUNZIA SOUTHWEST TRANSMISSION PROJECT

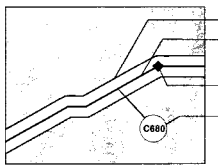
SunZia

Panel f

Case No. 171

Attachment A

Project Features



Utilities

- Existing Substation
- Proposed Willow 500 kV Substation
- Proposed 500 kV DC Converter Station (option)
- Existing Transmission Lines
- Pipeline
- Canal

Reference Features

- City/Town
- Interstate
- Highway
- Local Road
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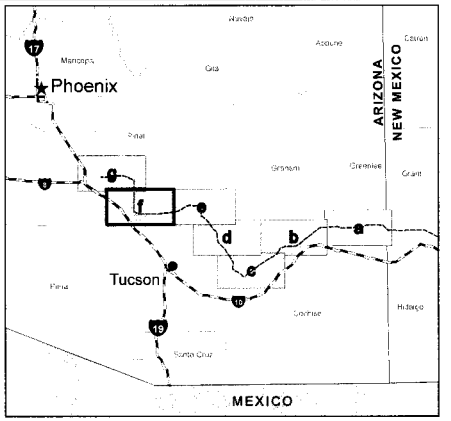

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USGS, 2015

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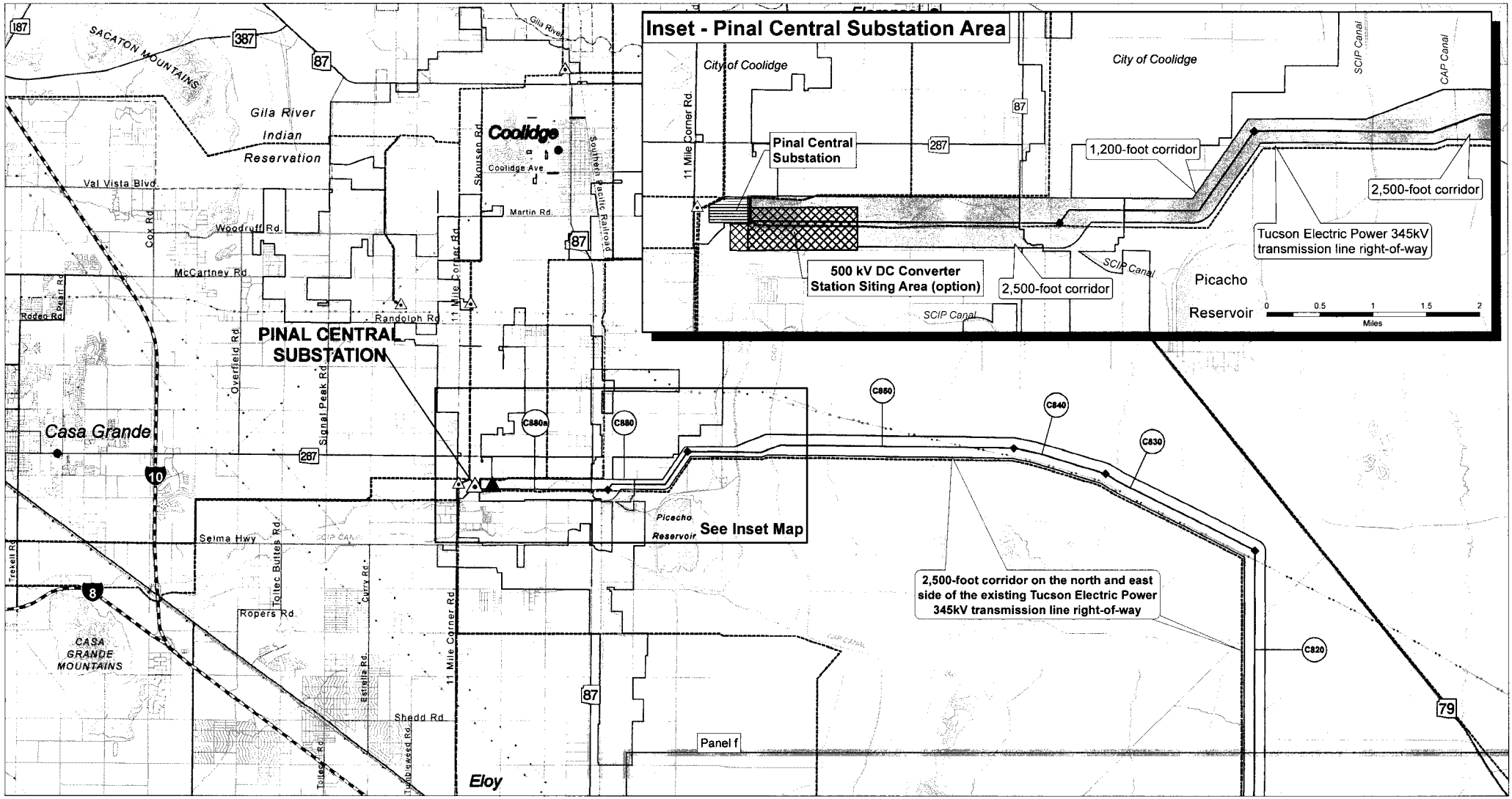

CEC Corridor Map

SUNZIA SOUTHWEST TRANSMISSION PROJECT

SunZia

Panel g

Case No. 171

Attachment A

Project Features

- 2500' Wide Corridor
- Corridor Centerline
- Link Node
- Link Identifier

Utilities

- Existing Substation
- Proposed Willow 500 kV Substation
- Proposed 500 kV DC Converter Station (option)
- Existing Transmission Lines
- Pipeline
- Canal

Reference Features

- City/Town
- Interstate
- Highway
- Local Road
- Railroad
- River/Stream
- State Boundary
- County Boundary
- City/Town Boundary
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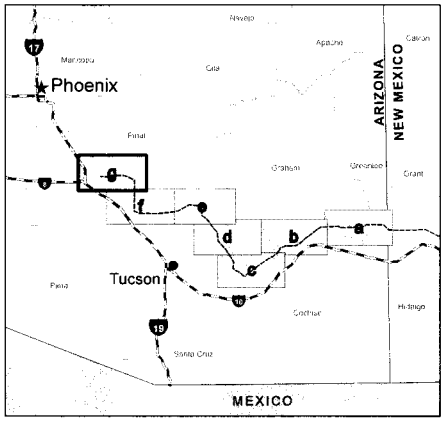

Sources

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Contour Interval = 100 Feet

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RESIDENTIAL UTILITY CONSUMER OFFICE

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Douglas A. Ducey
Governor

David P. Tenney
Director

November 10, 2015

Mr. Thomas Chenal, Chairman
Arizona Corporation Commission
Power Plant and Transmission Line Siting Committee
1275 West Washington Street
Phoenix, AZ 85007-2926

Re: SunZia Southwest Transmission Project
ACC Docket No. L-00000YY-15-0318-00171

Dear Chairman Chenal:

In regards to Case No. 171, concerning an Application for a Certificate of Environmental Compatibility ("CEC") for the SunZia Southwest Transmission Project ("SunZia", or the "Project"), the Residential Utility Consumer Office ("RUCO") supports the issuance of a CEC by the Line Siting Committee and the Arizona Corporation Commission.

RUCO represents the state's residential utility ratepayers in regulatory proceedings at the Arizona Corporation Commission and is an advocate for their interests. We are aware of and support the SunZia Southwest Transmission Project, which will provide Arizona's electric utilities with additional transmission capacity to procure adequate, reliable and economic sources of electrical power for the state's residential customers. In addition, because the SunZia Project is a merchant transmission project, Arizona ratepayers stand to benefit without bearing the risks associated with development and construction of the project.

I appreciate the opportunity to support the issuance of a CEC for the SunZia Project. RUCO looks forward to the successful completion of SunZia as an integral component to the state's EHV transmission system.

Sincerely,

David P. Tenney
Director

SUNZIA SOUTHWEST TRANSMISSION PROJECT

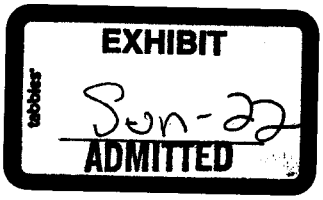
This is a supplemental response to a request from Chairman Chenal regarding a description of potential mitigation measures that could be implemented regarding biological, visual, and cultural resources (the "resources") potentially impacted by construction, operation, and maintenance of the Proposed Route for the SunZia Southwest Transmission Project. Impacts are recognized as "potential" until detailed engineering and surveys have been completed, which will inform the application of mitigation measures to specific locations. All mitigation measures described herein would, necessarily, be contingent upon site-specific conditions, consideration of other resources, technical and economic feasibility, and the agreement of the landowner (Arizona State Land Department, private landowners, or the Bureau of Land Management).

Acronym List:

- Arizona Game and Fish Department (AGFD)
- Avian Powerline Interaction Committee (APLIC)
- Best Management Practice (BMP)
- Bureau of Land Management (BLM)
- Extra High Voltage (EHV)

Mitigation Hierarchy (biological resources):

Below is a brief narrative describing the concepts considered in identifying and implementing potential mitigation measures to effectively reduce or eliminate potentially adverse impacts to biological resources from a transmission line project. Mitigation planning for cultural and visual resources will be introduced separately, as this framework may not be explicitly considered in the same manner.



1. **Avoid impacts**

- Impact does not take place
  - Opportunities and constraints analysis
  - Detailed alternative development
  - Design and engineering

2. **Minimize impacts**

- Impact takes place, but mitigation reduces the intensity or extent of the impact
  - Construction practices
  - Design and engineering

3. **Restore environment/resources**

- Effects of impact are temporary, and natural or assisted recovery from impact occurs over time
  - Reclamation
  - Right-of-way management

4. **Compensation for certain remaining "residual" impacts**

- Compensation for residual impacts (those that remain after mitigation is applied) to certain resources may be requested or required by stakeholders
- Concepts vary widely depending on the affected resource and resource management agency priorities and legal regimes requiring or facilitating the same.

Biological Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
1	Impacts to biologically sensitive locations (general)	Avoidance	1. Avoidance wherever feasible. ▪ Wetlands ▪ Habitat for threatened, endangered, sensitive species ▪ Areas highly susceptible to erosion, particularly where sediments can reach rivers and streams
		Minimization	1. Design project to have the lowest impact to sensitive sites that would be affected. 2. Protect sensitive sites during construction. ▪ Construction monitoring ▪ Marking boundaries or using physical barriers 3. Ensure that impacts to sensitive sites are minimized during operation. ▪ Road maintenance ▪ Monitoring
		Restoration	1. If impacts are temporary, promptly restore affected site.
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
2	Seasonal impacts to sensitive wildlife	Avoidance	1. Conduct construction and maintenance activities outside sensitive seasons (e.g., bird nesting season).
		Minimization	1. If complete seasonal avoidance is not feasible, minimize impacts through construction practices appropriate for the affected species. ▪ Work during certain times of day ▪ Use measures to minimize disturbance (control noise, light)
		Restoration	*NA: concept does not apply.*
		Offsetting	*NA: concept does not apply.*
3	Tall structure avoidance by certain species	Avoidance	1. During siting, avoid habitat for species known to avoid the presence of tall structures (which may be perceived as a potential predation threat from perching raptors).
		Minimization	1. If habitat for species sensitive to tall structures is crossed, attempt to colocate with other transmission lines. 2. Use structure design that minimizes the use of the project by perching or nesting raptors. ▪ Avian Protection Plan
		Restoration	1. Impact would be removed at the time of decommissioning.
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
4	Spread of invasive	Avoidance	*NA: avoidance may not be feasible, and additional measures would be more effective.*

Biological Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
	weeds	Minimization	1. Develop a Weed Management Plan. ▪ Survey and treat invasive plants within the right-of-way ▪ Provide BMPs to minimize spread of weed seeds during construction and restoration
		Restoration	1. Promptly restore any areas of temporary ground disturbance. 2. Ensure restoration is conducted with non-invasive, preferably locally sourced native seeds and plants. 3. Monitor restoration to ensure that plant invasion is not facilitated by ground disturbance from construction, and treat any weed infestations.
		Offsetting	1. In high-risk areas or where warranted, support weed treatments outside the right-of-way where required by law or by the agency with jurisdiction over the resource.
5	Habitat loss from ground disturbance	Avoidance	*NA: Biological resources may be present anywhere.*
		Minimization	1. Minimize the total area subject to permanent and temporary ground disturbance. 2. Wherever possible, adjust location of project facilities to avoid resources that are uncommon or disproportionately valuable to wildlife.
		Restoration	1. Conduct prompt and thorough reclamation of work areas and other sites with temporary disturbance.
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
6	Bird collision risk	Avoidance	1. Incorporate APLIC siting recommendations into planning. ▪ Avoiding high-risk areas (e.g., areas with concentrated bird use, takeoffs and landings, large species known to be particularly at risk of collision) ▪ Colocating with existing transmission lines ▪ Using terrain features, trees, other barriers to facilitate safe bird flight over transmission lines
		Minimization	1. Incorporate APLIC design recommendations into planning. ▪ As much as is feasible, match heights, spans, and configurations of existing transmission lines ▪ Minimize the exposure to a collision risk to birds moving in a horizontal plane (e.g., ensure that as many wires as possible are in a single plane) ▪ Consider the application of bird diverters in high-risk areas 2. Development of an Avian Protection Plan, an operational document to minimize harm to birds. ▪ Addresses collision and (on lower-voltage lines) electrocution ▪ Provides site-specific and adaptive mitigation if appropriate.
		Restoration	*NA: concept does not apply.*
		Offsetting	1. Consider habitat improvement projects to support increased bird productivity to offset collision mortality where required by law or by the agency with jurisdiction over the resource.
7	Migratory bird habitat	Avoidance	(See notes for 5: Habitat loss from ground disturbance.)

Biological Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
	loss	Minimization	(See notes for 5: Habitat loss from ground disturbance.)
		Restoration	(See notes for 5: Habitat loss from ground disturbance.)
		Offsetting	1. Support federal agency responsibilities to conserve migratory bird habitat when making land management decisions. 2. Consider habitat improvement projects to offset permanent or temporary loss of bird habitat where required by law or by the agency with jurisdiction over the resource.
8	Harm to Desert Tortoises, Gila Monsters, Burrowing Owls, other burrowing animals	Avoidance	1. Avoid burrows, rock shelters, and other uncommon resources during construction of roads and other project features.
		Minimization	1. Implement construction practices recommended by Arizona Game and Fish Department. ▪ Preconstruction surveys for burrows and other shelter sites. ▪ Relocation of individuals out of harm's way. ▪ Construction monitoring to ensure wildlife encountered during construction is protected. 2. Minimize unauthorized travel on access roads to minimize illegal collection of sensitive species (primarily reptiles).
		Restoration	1. During restoration of temporary impacts, consider replacing rocks and other cover removed during construction.
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
9	Harm to mobile terrestrial wildlife	Avoidance	*NA: these species are widespread and may occur at any location.*
		Minimization	1. Ensure that construction and maintenance vehicles travel at speeds that are safe for wildlife. 2. Construction monitoring to ensure wildlife encountered during construction is protected. 3. Minimize unauthorized travel on access roads. ▪ Minimizes vehicle mortality ▪ Minimizes increased access for illegal hunting or poaching
		Restoration	*NA: concept does not apply.*
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
10	Erosion from temporary disturbance and access roads	Avoidance	1. Design access road network to avoid locations where erosion could not be controlled through design or maintenance.
		Minimization	1. Design and maintain all access roads to prevent or limit erosion. ▪ Consider topography and geology ▪ Consider road design at stream crossings 2. Minimize unauthorized travel on access roads.

Biological Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
			▪ Traffic contributes to loose soil on roadways, facilitates erosion 3. Use overland travel where it would not increase impacts. 4. In areas where geologic or topographic constraints warrant, and where it is technically and economically feasible given site-specific conditions, consider alternatives to development of standard access roads (e.g., aerial-assisted construction with ground access for light vehicles).
		Restoration	4. Restore all areas of temporary disturbance. 5. Reclaim roads not necessary for maintenance and operation.
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
11	Noise, lighting, other human activity that may cause wildlife to avoid work areas	Avoidance	(See notes for 2: Seasonal avoidance of sensitive periods.)
		Minimization	1. Perform activities that may disturb wildlife outside of sensitive seasons and times of day. ▪ Diversity of wildlife species may result in conflicting seasonal restrictions ▪ Guidance provided by appropriate agencies would be incorporated to balance impacts 2. When feasible, use construction and maintenance methods that limit noise and other sources of disturbance to wildlife. ▪ Consider how maintenance inspections may be conducted
		Restoration	*NA: concept does not apply.*
		Offsetting	*NA: concept does not apply.*
12	Impacts to water quality and aquatic species	Avoidance	1. Avoid construction in locations that would affect waterways and water quality.
		Minimization	1. Evaluate potential impacts and comply with relevant sections of the Clean Water Act. 2. If the project crosses a waterway or areas with a direct surface connection to a waterway, or is in a floodplain, ensure that BMPs are in place to ensure that water quality is not adversely impacted. ▪ Spill prevention and response measures ▪ Erosion control measures that may be more intensive than elsewhere
		Restoration	1. Promptly restore any areas of temporary ground disturbance to ensure that runoff does not carry materials into waterways.
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
13	Risk of accidental fire ignitions.	Avoidance	*NA: concept does not apply.*
		Minimization	1. Develop a plan that provides BMPs to reduce the risk of starting a fire during construction, operation, and maintenance. ▪ Address weather conditions

Biological Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
			▪ Address construction activities that can ignite fires (e.g., welding, blasting, small engine use) ▪ Address behavioral factors that can increase accidental ignition risk (e.g., smoking, vehicle parking) ▪ Monitor compliance 2. Develop a plan to suppress a fire in the event one does occur. ▪ Provide appropriate equipment and training to personnel to suppress accidental ignitions when safe ▪ Provide emergency fire response contact information to all personnel
		Restoration	1. Develop a postfire rehabilitation strategy. ▪ Address erosion ▪ Address risk of weed invasion
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
14	Change of vegetation conditions within the right-of-way	Avoidance	*NA: concept does not apply.*
		Minimization	1. Where the right-of-way supports desired vegetation conditions prior to construction, attempt to manage undisturbed portions of the right-of-way to maintain those conditions.
		Restoration	1. Where the right-of-way does not support desired vegetation conditions, and where feasible (e.g., outside of developed or agricultural areas), manage vegetation within the right-of-way to facilitate the recovery of desired vegetation conditions.
		Offsetting	*NA: concept does not apply.*
15	Threatened, endangered, and sensitive species impacts to habitat	Avoidance	1. Comply with terms, conditions, and recommendations issued in the Biological Opinion. 2. Avoid habitat for threatened, endangered, and sensitive species during development of alternative routes. 3. Where possible, avoid impacts to specific locations at the design level (e.g., occupied patches of rare plant habitat).
		Minimization	1. Comply with terms, conditions, and recommendations issued in the Biological Opinion. 2. Develop engineering and design solutions to minimize impacts to habitat that cannot be avoided.
		Restoration	1. Promptly restore any areas of temporary ground disturbance in sensitive species habitat.
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
16	Threatened, endangered, and sensitive species	Avoidance	1. Comply with terms, conditions, and recommendations issued in the Biological Opinion.
		Minimization	1. Comply with terms, conditions, and recommendations issued in the Biological Opinion. 2. Minimization measures presented in this table would also apply to sensitive species.

Biological Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
	impacts to individuals	Restoration	1. Comply with terms, conditions, and recommendations issued in the Biological Opinion. 2. Minimization measures presented in this table would also apply to sensitive species.
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
17	Wildlife habitat loss and other impacts not addressed through any other compensatory mitigation actions.	Avoidance	*NA: This measure is intended to only refer to requests for compensatory mitigation not previously mentioned.*
		Minimization	
		Restoration	
		Offsetting	1. The policy of AGFD is to request compensatory mitigation to offset residual impacts of developments that cause habitat loss for wildlife held in trust by the state. Response to this request and development of suitable mitigation actions to offset impacts to wildlife can address residual impacts. In cases where an impact of a transmission line cannot be directly offset for any reason, alternative actions may also be developed.
Species-specific Measures Beyond Seasonal and Spatial Avoidance Addressed Generally Above			
18	Lesser Long-nosed Bat foraging habitat loss	Avoidance	1. Avoid individual saguaros and agaves during design and construction.
		Minimization	1. Minimize disturbance of agaves and saguaros during construction and operation.
		Restoration	1. During construction and restoration, salvage and replace agaves and saguaros that cannot be avoided. 2. Provide replacement plants for any individual plants that could not be salvaged.
		Offsetting	1. If salvage and replacement of plants cannot achieve pre-disturbance densities and size distribution, conduct off-site actions to replace forage plants elsewhere where required by law or by the agency with jurisdiction over the resource.
19	Lesser Long-nosed Bat disturbance to roost sites	Avoidance	1. Avoid known Lesser Long-nosed Bat roosts by at least 0.25 miles when possible.
		Minimization	1. If known Lesser Long-nosed Bat roosts are within 0.25 miles, conduct blasting and other activities that can cause ground vibration during seasons when the roost is not in use.
		Restoration	*NA: concept does not apply.*
		Offsetting	1. General consideration of compensatory mitigation actions where required by law or by the agency with jurisdiction over the resource.
20	Southwestern Willow Flycatcher and Yellow-	Avoidance	1. During alternative route development and selection, consider crossing rivers in locations that avoid habitat for the species.

Biological Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
	billed Cuckoo habitat loss	Minimization	1. If habitat cannot be avoided completely, consider crossing rivers in locations that minimize impacts to habitat by avoiding known occupied habitat patches, high-quality habitat patches, and areas where river floodplains are wide and cannot be completely spanned. 2. During design of the project, consider engineering solutions that minimize the need to alter habitat for the species. 3. During construction and operation of the project, ensure that habitat is disturbed to the least extent possible.
		Restoration	1. If any habitat disturbance is necessary, restore temporary impacts.
		Offsetting	1. If any permanent habitat disturbance is necessary or if warranted from temporary disturbance, support offsite actions to improve existing habitat or provide replacement habitat where required by law or by the agency with jurisdiction over the resource.
21	Sonoran Desert Tortoise habitat loss	Avoidance	*NA: habitat is widespread and cannot be completely avoided.*
		Minimization	1. See other measures discussing minimization of ground disturbance.
		Restoration	1. See other measures discussing restoration of temporary ground disturbance.
		Offsetting	1. The BLM in Arizona has a policy to require a compensatory mitigation fee for habitat loss within specific areas identified as Desert Tortoise habitat as a part of the issuance of a right-of-way. This fee is used to fund actions to acquire or enhance Desert Tortoise habitat.

Visual Resources Mitigation

Potential visual impacts associated with the construction of the Project include the effects to the quality of scenic resources and the views from sensitive land uses and recreation areas or sites (including scenic travel routes). The BLM has established Visual Resource Management objectives to assist in the management of public lands in a manner that protects the quality of scenic values and directs the level of acceptable change to the landscape. The BLM encourages the development of linear facilities and rights-of-way like the Project in designated areas, such as existing utility corridors. The visual impacts expected to occur as a result of the Project are based primarily on the introduction of new facilities in areas of higher scenic quality or when visible from sensitive viewing locations.

Visual Resource Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
1	Impacts to intact landscapes (i.e., Class A, B, and C scenery)	Design	1. Use of non-specular conductors. 2. Use of dull-gray steel on transmission line structures (based on setting). 3. Use monopole structures in modified settings (e.g. agricultural lands). . 4. Collocate with existing linear developments including similar EHV transmission line facilities
		Construction	1. Reclaim temporary disturbed sites with natural vegetation. 2. Span narrow landscapes (e.g., canyons) to the greatest extent practical.
		Operation	1. Monitor intact landscape where temporary disturbance has occurred to ensure reclamation goals (set by applicable agency or land owner) are met.
2	Impacts to Sensitive Viewers (Residential)	Design	1. Use of non-specular conductors. 2. Use of dull-gray steel on transmission line structures (based on setting). 3. Use monopole structures in modified settings (e.g. agricultural lands). 4. Avoid sensitive viewer viewsheds (buffers) during siting of the Project. 5. Choose routes that maximize the use of existing roads to the greatest extent practicable.
		Construction	1. Match existing tower spans, when feasible, to the extent practicable. 2. Match lot lines if the Project parallels existing residences or would parallel a proposed development.
		Operation	1. Restrict access in the vicinity of residences if access should not required for recreation. 2. Incorporate right-of-way of Project into residential open space/plan.
3	Impacts to Sensitive Viewers (Recreation)	Design	1. Use of non-specular conductors. 2. Use of dull-gray steel on transmission line structures (based on setting). 3. Site proposed line to physically cross trails or scenic roads at perpendicular angles to reduce the visibility of transmission structures. 4. Maximize span crossing trail or sensitive recreation area to the extent practicable to reduce visibility. 5. Use local topography and existing vegetation to screen view of project from trails and other recreation areas (e.g., golf courses). 6. Incorporate recreation trail system into development's recreation trail system.
		Construction	1. In the vicinity of recreation sites, consider the timing of construction activities and potential measures to minimize disturbance (control noise, light). 2. Reclaim temporary disturbed areas or access roads if applicable based on operation and maintenance needs.
		Operation	1. Monitor success of reclamation based on agency approved success standards.
4	Impacts to Sensitive Viewers (travel routes)	Design	1. Use non-specular conductors. 2. Use dull-gray steel on transmission line structures (based on setting).
		Construction	1. Locate proposed line to physically cross travel route at perpendicular angles to reduce the visibility of transmission structures. 2. Maximize span crossing travel route to the extent practicable to reduce visibility.

Visual Resource Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
			3. Use local topography and existing vegetation to screen view of project from travel routes. 4. Reclaim temporary disturbed areas or access roads if applicable based on operation and maintenance needs.
		Operation	1. Monitor reclamation success in the vicinity of travel routes.

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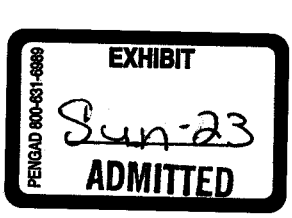
Cultural Resources Mitigation

Potential impacts to Historic Sites, Structures, and Archaeological Sites associated with the construction, operation, and maintenance of the Project are addressed in a comprehensive Programmatic Agreement (PA). The PA was prepared by the BLM and numerous stakeholders in accordance with Section 106 of the National Historic Preservation Act. Stakeholders participated during over a year of consultation meetings as signatories, invited signatories, concurring parties, or consulting parties to prepare the PA, including federal agencies, state agencies, Indian tribes, professional archaeological organizations, and citizen groups in both Arizona and New Mexico. The PA specifies that these stakeholders will continue to have input, review, and advisory roles throughout the life of the project, including during the design, construction, and operation phases, to ensure appropriate and thorough implementation of the PA for the project over its operational life. The process set forth in the PA is designed with the flexibility to accommodate new information that may be provided by cultural resource survey results, construction monitoring, and other sources.

Cultural Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
1	Direct impacts to historic sites, structures, or archaeological sites	Design	1. Prepare a cultural inventory plan in consultation with Section 106 consulting parties. 2. Perform a 100% cultural resources inventory of the project's area of potential direct effects (Direct Effects APE), including inventory for cultural landscapes, and share results with Section 106 consulting parties. 3. Evaluate significance of cultural resource sites in consultation with Section 106 consulting parties. 4. Assess potential effects to significant sites in consultation with Section 106 consulting parties. 5. Determine sites to be avoided, mitigated, or subjected to long-term monitoring in consultation with Section 106 consulting parties. 6. Prepare a Historic Properties Treatment Plan (HPTP) to identify appropriate measures to mitigate direct effects to significant sites on a site-by-site basis, in consultation with Section 106 consulting parties. This may be included in an overall HPTP for mitigating both direct and indirect effects. 7. Prepare a Monitoring and Discovery plan in consultation with Section 106 consulting parties to be followed during construction and decommissioning of transmission line. This will provide measures to ensure avoidance of certain cultural sites, including barricading of sites, designation of avoidance routes, monitoring by archaeological and tribal monitors, and archaeological and tribal sensitivity training for work crews.
		Construction	1. Implement the Historic Properties Treatment Plan prior to construction; this may occur in a phased-approach, with site mitigation completed and approved prior to construction beginning in an area. 2. Implement construction-phase procedures specified in the Monitoring and Discovery Plan.
		Operation	1. Implement long-term, operations-phase monitoring and discovery procedures stipulated in the Monitoring and Discovery Plan.
		Decommissioning	1. As specified in the Programmatic Agreement, decommissioning would take place at some future time and will be considered a separate undertaking when it occurs, which would require a separate analysis and resolution of adverse direct effects under Section 106 of the National Historic Preservation Act.
2	Indirect impacts to historic sites, structures, or archaeological sites	Design	1. Conduct inventory and assessment of cultural sites within the project's area of potential indirect effects (Indirect Effects APE) as defined in the Programmatic Agreement and in consultation with Section 106 consulting parties. 2. Prepare a Historic Properties Treatment Plan (HPTP) to identify appropriate measures to mitigate indirect effects to significant sites on a site-by-site basis, in consultation with Section 106 consulting parties. This may be included in an overall HPTP for mitigating both direct and indirect effects.
		Construction	1. Implement the Historic Properties Treatment Plan prior to construction; this may occur in a phased-approach, with site mitigation completed and approved prior to construction beginning in

Cultural Resources Mitigation Concepts			
	Type of Impact	**Phase**	**Mitigation Actions**
			an area. 2. Implement construction-phase procedures specified in the Monitoring and Discovery Plan.
		Operation	1. Implement long-term, operations-phase monitoring and discovery procedures stipulated in the Monitoring and Discovery Plan.
		Decommissioning	1. As specified in the Programmatic Agreement, decommissioning would take place at some future time and will be considered a separate undertaking when it occurs, which would require a separate analysis and resolution of adverse indirect effects under Section 106 of the National Historic Preservation Act.



BEFORE THE
ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF SUNZIA TRANSMISSION LLC, IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE SUNZIA SOUTHWEST TRANSMISSION PROJECT, WHICH INCLUDES THE CONSTRUCTION OF TWO NEW 500 KV TRANSMISSION LINES AND ASSOCIATED FACILITIES ORIGINATING AT A NEW SUBSTATION (SUNZIA EAST) IN LINCOLN COUNTY, NEW MEXICO, AND TERMINATING AT THE PINAL CENTRAL SUBSTATION IN PINAL COUNTY, ARIZONA. THE ARIZONA PORTION OF THE PROJECT IS LOCATED WITHIN GRAHAM, GREENLEE, COCHISE, PINAL, AND PIMA COUNTIES.	DOCKET NO. L-00000YY-15-0318-00171 Case No. 171 **NOTICE OF FILING REBUTTAL TESTIMONY**

SunZia Transmission, LLC, hereby files the attached Rebuttal Exhibit number 23 as part of Mark Etherton's rebuttal testimony.

RESPECTFULLY SUBMITTED this 17th day of November, 2015.

RYLEY CARLOCK & APPLEWHITE

By: _____

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MUNGERCHADWICK, PLC

By: _____ *FOR*

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Of Counsel
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CERTIFICATE OF MAILING

Pursuant to A.A.C. R14-3-204, the **ORIGINAL** of the foregoing and 25 copies filed this 17th day of November, 2015, with:

Utilities Division – Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

COPY of the foregoing emailed this 17th day of November, 2015, to:

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By /s/ Lisa Gefroh

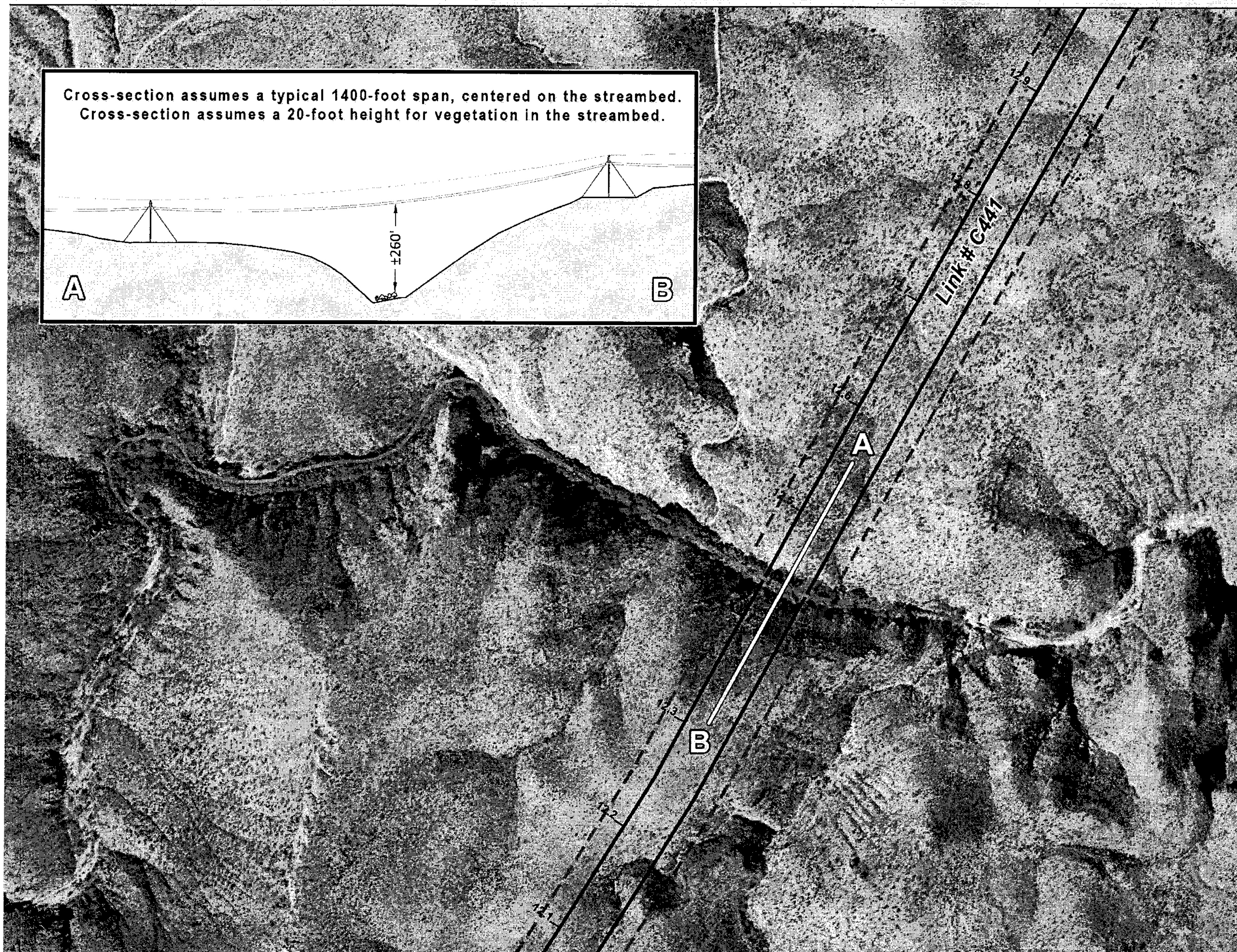
EXHIBIT 23

CD – Rebuttal Exhibit number 23 as part
of Mark Etherton's rebuttal testimony

Link to the video posted on the SunZia website at

Arizona Certificate of Environmental Compatibility, Item V.
http://www.sunzia.net/resources_documents.php

FIG. 21



SunZia Southwest Transmission Proj

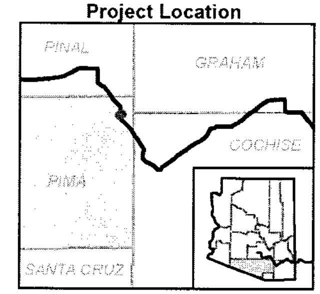
Buehman Canyon

Legend

- BLM Preferred Alternative
- Buehman Canyon Permanent Flow
- Buehman Conyon Intermittent Flow
- 400' ROW
- Cross Section Detail

EXHIBIT
Sun-24

Project Location



Source: EPG 2010; ESRI 2010

0 250 500 750 1,000
Feet

January 23, 2013

S:\EPG\Geospatial\Projects\SunZia\SunZiaSW\MXD\BIO_BA\BIO_BA_Beuhman_C